Expert Report

Prepared by Daniel Violette, Ph.D.

1.0 Introduction and Summary

This introductory section summarizes my background and qualifications specifically related to demand-side issues such as load management and curtailable load programs. It also summarizes the issues addressed and the report findings.

1.1 Qualifications

My name is Daniel M. Violette. I have a Ph.D. in Economics with fields in Industrial Organization and Econometrics. I am a Principal with Summit Blue Consulting, a firm that specializes in economics, regulation and technology in the electric industry, with projects addressing both supply-side and demand-side issues. Most recently, I have been involved in the areas of demand-side resources (DSR), which encompass the concepts of load management, capacity reserves and load curtailments that might be provided by customers in electric markets. My resume is presented as Attachment A to this report; however, some pertinent experience is discussed briefly below:

- Throughout the 1990s, I have participated in the development, review and evaluation of load management and load curtailment programs. These include reviews of Xcel Energy's large customer and small customer programs, Florida Power Corporation's load management program, Consolidated Edison's real-time pricing program, Sacramento Municipal Utility District's recent experiments with new load management technology and critical peak pricing programs, LGE Energy's load management program, Idaho Power's communicating thermostat load management program, and the Chicago Community Cooperative's real-time pricing program this past summer. In addition to these efforts, I am currently completing an evaluation of New York State Energy Research and Development Authority's peak load programs that includes, as subprograms, advanced interval metering, permanent peak reductions, and enabling technologies that are meant to allow customers (large and small) to participate in the New York ISO's demand response programs.

- In addition to this program evaluation work, I have consulted with utilities on the design of demand-side resources programs. I have consulted for the American Electric Power (AEP) Company helping to define energy supply offers to retail customers in the Texas market, including load management and price responsive load offers; and with NSTAR in Boston on the types of offers it might make to its customers for participation in the ISO New England demand response programs. I also have consulted with technology companies such as Honeywell, Inc. on the value of proposition for energy suppliers and

their customers related to customer-based reserve capacity and load curtailment. This included planning and facilitating a technology summit for the Honeywell Buildings and Controls division, and helping set up meetings between Honeywell and a number of utilities to explore the value of these concepts to energy suppliers.

- I was a founding member of the Peak Load Management Alliance (PLMA) in October 1999. The PLMA is composed of technology companies (e.g., metering), software companies, consulting firms, energy suppliers, and industry organizations (namely EPRI, the Edison Electric Institute, and the National Association of Rural Electric Cooperatives). I was elected to a two-year term as Vice Chair of the Alliance, and I have been re-elected to positions on the PLMA executive committee since then. I was the lead author on the first two PLMA white papers: *Demand Response: Principles for Regulatory Guidance*, and *Demand Response: Design Principles for Creating Customer and Market Value*. These white papers address the types of customer-based capacity reserves and load curtailment that are the subject of this civil action. In addition, I co-chaired several of the PLMA's conferences where I organized and moderated three panels of ISO representatives from the different ISOs (including PJM, NY ISO, CA ISO, ISO NE, and ERCOT ISO) in separate events.

- I served three elected terms as the President of the Association of Energy Services Professionals International (AESP). This professional association supports the development of professionals who work in all areas of energy services, including load management, distributed generation, price-responsive load programs, energy efficiency programs, and customer services. I chaired the evaluation topic committees and the pricing topic committee for the Association. I co-authored committee reports entitled *State Regulatory Activity on Time-Differentiated Electricity Pricing Programs* and *Peak Load Management: A Policy Review.* I currently serve on the Board of Directors for the AESP and I am co-chairing for the second year the AESP/EPRI Pricing Conference which focuses on retail pricing, including demand response programs and offers.

- I am currently serving as the Task Manager for two subtasks under the International Energy Agency (IEA) Demand Side Programme T*ask XIII: Demand Response Resources.* I am responsible for tasks related to estimating the technical and economic potential of demand response resources (customer capacity reserves and load curtailments), and developing processes for assessing the business or economic case for these resources in different types of energy markets. This involves leading panels of experts from different countries to methods and approaches for estimating the market for and economics of demand-side resources. I have authored reports for the IEA, the World Bank, OECD, U.S. AID, and I have conducted workshops for the Asian-Pacific Economic Cooperation (APEC) Energy Working Group.

1.2 Report Scope and Summary

I have been asked by counsel for Constellation NewEnergy to review the Expert Report prepared for Powerweb by Dr. Peter Fox-Penner (April 2004) and the Lost Revenues Report prepared by Pappas and Company (March 31, 2003), and to consider and analyze foundational assumptions in those reports related to the technology at issue and the energy industry at this time period. I did not review these Expert Reports, nor any other document, from the perspective of the specific size and dollar value of the market for capacity sales and load management. Instead, my focus was on underlying industry and market assumptions.

Issue 1) Dr. Fox-Penner's definition of Energy Technology used in his estimation of economic damages is overly broad. He refers to the technology in the present tense in terms of its functionality, i.e., what the technology can do today, as opposed to the state of the technology at the time of the agreements and interaction between Powerweb and NewEnergy.

On this first issue, I conclude that the definition of "Energy Technology Information" used by Dr. Fox-Penner is inappropriate for the time period of the agreements. Technology has evolved over time and the only Energy Technology Information appropriate for this assessment is that which existed at the time of the agreements and the exchange of information between the parties.

Issue 2) The assumption made by Dr. Fox-Penner that "NE has used the Energy Technology Information and disclosed Energy Technology Information to other parties." (p. 6, first full paragraph).

On this second issue, I have not observed any use or disclosure to other parties of Powerweb's Energy Technology Information by Constellation NewEnergy. Therefore I concluded that the calculated damages do not flow from the Non-Disclosure Confidentiality Agreement.

And:

Issue 3) The assumption made by Pappas and Company in the Lost Profits Report where they state: "NewEnergy's failure to maintain the confidentiality of Powerweb's energy technology information created competition before it would have arisen naturally. As a result of premature competition, Powerweb lost 13 contracts." Pappas and Company then calculates lost profits assuming that Powerweb would have won every one of those 13 contracts.

On this third issue, my analysis shows that Powerweb would not have had a unique position in the industry such that it would likely have won all 13 contracts. I conclude that there are many market players with different technologies, and energy information services providers that could meet the objectives of utilities, energy suppliers, and customers seeking load curtailment programs and services. There is no basis for assuming that Powerweb would have been successful in any of the 13 bids, let alone all thirteen.

Without the three sets of assumptions discussed above, there is no basis in evidence supporting the estimates of economic damages and lost profits contained in the two Expert Reports.

1.3 Compensation

Summit Blue Consulting is being compensated for its work in this matter using the standard hourly rates of personnel working on this case under my supervision and direction, subject to a maximum rate of $290 per hour, which is my current hourly rate.

1.4 Materials Reviewed

The analysis approach involves a review of the materials produced in this case, as well as supplemental industry analyses. Depositions of key personnel were reviewed, and I reviewed the key agreements between Powerweb and NewEnergy.

In addition to reviewing materials and documents produced as part of this case, I reviewed a number of industry documents to help ascertain the nature of technologies being offered by energy technology information and curtailment service providers. Documents were obtained from E-Source with an emphasis on three of its service offerings — 1) Strategic Issues Papers, 2) Distributed Energy Series, and 3) Energy Information and Communication Series. In addition to E Source Reports, papers presented at E Source Members Meetings and the Energy Information and Communication Summits dating back to 1997 were examined.

A number of other sources of information were reviewed, including documents prepared by the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), white papers prepared by the Peak Load Management Alliance (PLMA), presentations at the fall and spring meetings of the PLMA, information available from the PJM ISO and other ISOs, and a variety of publications such as the archives of *Metering International*, *Purchasing Magazine Online*, and a variety of product literature published by industry trade allies.

Attachment B contains a list of all materials and documents relied upon in this report.

2.0 Industry Background

The Fox-Penner Expert Report discusses in its "Background" section the fact that some states in the mid-1990s began to restructure their utility industries to allow for competition in providing electricity to retail customers. While the retail choice movement has had an important influence on the industry, the changes made in wholesale markets for electricity have been even more sweeping. During the 1990s, unregulated wholesale power markets developed in all regions of the United States. Capacity reserves and load curtailments are directly influenced by wholesale market factors and an understanding of these recent changes provides important context for examining capacity and curtailment products that compete with supply in these markets.

As correctly pointed out by Dr. Fox-Penner, a number of states now allow competitive suppliers to offer retail electricity supply to some or all retail customers. The fact that retail choice has developed in some states is one of the key factors in Dr. Fox-Penner's estimates of economic damages:

> *"The five regions I examine either are retail choice states or are composed primarily of retail choice states."(footnote #3, p. 3)*

The advent of retail choice in some states has impacted the electricity market, but this should be placed in context with the dramatic restructuring of the wholesale markets. Wholesale power markets are now competitive throughout the United States as compared to retail choice, which affects customers in only a few states. The passage of the Energy Policy Act of 1992 led to the Federal Energy Regulatory Commission (FERC) allowing market based rates for independent power producers in the wholesale markets. In turn, this led to massive development of merchant power plants and competition in the wholesale power markets. Open transmission access for generators was promulgated through FERC Order 888 and has further expanded competition. These two events have dramatically changed the electric industry. Barriers have been removed and supply-side options have increased opportunities. The past five years have seen a dramatic increase in the size of the merchant power plant industry and competitive wholesale markets throughout the United States.

The increased competition in wholesale markets is important when examining capacity transactions, whether they involve standby reserves or other ancillary services since these transactions take place in the wholesale market. The recognition of the full competitive nature of this market for generation is important when establishing the context for capacity-based transactions such as those described as being supported by Powerweb's Energy Technology.

Dr. Fox-Penner's industry background discussion states that:

> *"The exposure of deregulated C&I customers to price volatility has spawned a substantial interest in tools that can enable customers to save money on their electric bills by reducing their own use temporarily when hourly prices are high and/or selling back into the hourly market small amounts of power these customers either have purchased in advance or can generate from small on-site generators."(p.4)*

These actions are termed Load Management (LM), Demand Response (DR) or Price-Responsive Load (PLR). These terms, as noted by Dr. Fox-Penner, are often used interchangeably. When the customer either reduces load or turns on an on-site generator, a "load curtailment" results – that is, the load on the grid, seen by the utility, is reduced. The amount of load that can be reduced is called "curtailable load." It is important to recognize that the objective of any technology designed to enable and support LM is to create curtailable loads that can be "dispatched" during periods of shortages (reliability-based dispatch) or high prices (economic-based dispatch). Thus, a product is created that, in essence, produces capacity on the system that can be used to economic advantage by market actors in wholesale markets.

Technology that enables the production of curtailable loads must do so economically to successfully compete with supply-side generation options. Any number of notification, control

and economic analyzer technologies with different levels of sophistication can be used to produce curtailable loads. Just because it is possible to design high-tech options that produce massive amounts of detailed energy-use information to be managed doesn't mean that this option is the right choice for most customers. In fact, low-tech options are often the most economic. Extensive metering of a host of end-users, sensors to optimize controls, complex software to manage huge data sets produced by measurements taken every 5 to 15 minutes, comprehensive software to analyze economic options, and automated controls definitely can be developed and applied. These high-tech solutions are being used by some very large customers, but for many customers the costs of such a system outweigh the benefits. The tried and true LM approach used for over a decade includes notification by telephone or pager networks, and then a manual shutdown of select equipment (or an inexpensive switch costing under $50 activated by a radio signal or a page). This low-tech method is cheaper, often more reliable, and safer in some applications. Many energy suppliers have large participation by customers in low-tech programs using a combination of notification methods (e.g., e-mail, pager, telephone and web-based communications) and simple switch cut-offs or manual adjustments in equipment. Exhibit DV-1 discusses one of most prominent capacity programs in North America. Xcel Energy has over 2,000 customers selling capacity back for use as reserves under contracts with terms of up to five years using a low-tech approach.

Dr. Fox-Penner indicates that retail choice has "spawned a substantial interest" in tools enabling LM. In fact, the evidence supports the opposite conclusion, i.e., that retail choice has reduced incentives for load management and the transition to retail choice has resulted in less capacity residing in LM programs. Barriers to LM have been considerable as states have transitioned to retail choice. Uncertainties in how retail electric markets will develop and the roles of different market actors has discouraged investment in the infrastructure required to support appropriate demand response. As a result, the price elasticity of demand has probably decreased in recent years in states that have restructured their retail markets. This is due to the removal of time-of-use rates and other traditional utility load response programs. Moreover, regulated distribution utilities, uncertain about their future roles in retail commodity markets, have deferred investments in advanced metering and information systems. Also, standard offers in states with retail choice have become even less flexible and unfriendlier to price response and load management. Finally, the rapid growth of supply-side capacity as merchant power plants have been built has depressed wholesale energy and capacity prices with a corresponding reduction in the value of reserve capacity in most parts of the United States.

3.0 Analysis of Foundational Assumptions

This section presents the three areas I was asked to address by counsel for Constellation NewEnergy these include – 1) the definition of the Energy Technology Information, 2) the alleged breach of the Non-Disclosure and Confidentiality Agreement, and 3) the market position of Powerweb and the allegation of the creation of premature competition.

3.1 Issue #1: Definition of Energy Technology Information

Dr. Peter Fox-Penner defines the Powerweb "Energy Technology Information" in the first two paragraphs (p. 5) of "Section 3: Powerweb Technology Information" of his Expert Report. In the first paragraph (p. 5), he states that:

> *"Powerweb provides interactive energy systems to electric customers and energy suppliers. Powerweb created the Omni-Link® Internet Platform software which, together with metering equipment and contracting mechanisms comprises what is known as the Omni-Link® System. The Omni-Link®, related business strategies and other related information and know-how were defined as the "Energy Technology Information" in the Non-Disclosure Confidentiality Agreement. ... Among other features, the Omni-Link® System enables large energy customers to monitor and control energy usage, to utilize standby generation for economic load reductions, and to execute wholesale transactions in electricity capacity markets and energy products in order to gain financial benefit from altered patters of energy use."*

In the second paragraph Dr. Fox-Penner states:

> *"Customers can use the Energy Technology Information, or selected components such as the Omni-Link® System to their benefit in a variety of settings. For example, customers can use the Energy Technology Information in order to participate in, and comply with, ISO-sponsored LM programs. However, customers can also save on power bills quite apart from participating in the ISO-sponsored programs. Customers can use Omni-Link® System to alter patterns of energy use to innovative rate structures such as 'real-time pricing' or 'index rates' that have hourly prices, or keep energy use within certain levels under more traditional utility C&I rates that substantially penalize incremental usage during some periods of a day or month."*

The above discussion by Dr. Fox-Penner takes place in the present tense, i.e., what customers' can now use Powerweb Technologies to accomplish, and not what the technology was functionally and operationally capable of accomplishing during the relevant time periods in this proceeding.

What should have been done is to consider the Energy Technology Information that is protected by the Non-Disclosure Confidentiality Agreement. While there may be dispute about what is covered under this agreement; it can only have covered the Energy Technology Information that existed at the time of the agreement. We can only consider the Powerweb Energy Technology Information that existed at the times when information was exchanged between Powerweb and NewEnergy.

Clearly the Non-Disclosure Confidentiality Agreement was intended to cover information shared by Powerweb with NewEnergy for the purpose of due diligence pertaining to the potential

execution of a contract with Bell Atlantic.[1] Therefore the due diligence period is considered to be from October 11, 1999 when the Non-Disclosure Confidentiality Agreement was signed through January 7, 2000 when the Exclusive Agreement for Bell Atlantic was signed. Powerweb may argue that information exchanged after the due diligence period is also protected. I have not been asked to determine whether subsequent disclosures are covered by the Non-Disclosure Confidentiality Agreement; however, we will treat the due diligence disclosures separate from disclosures made after the due diligence period.

3.1.1 Due Diligence Disclosures

The Non-Disclosure Confidentiality Agreement of October 11, 1999 defines Powerweb's "Energy Technology Information" as follows:

> *WHERE AS, Powerweb Technologies is the legal owner of a number of energy sensing and energy reduction inventions comprised of gas sensing technologies, electronic metering devices, electricity control devices, and electricity consumption devices; and*
>
> *WHERE AS, Powerweb Technologies is also the legal owner of a patented integrated translation software system (Omni-Link®) which is utilized for energy information transfer, energy procurement, and facility based monitoring, Omni-Link® is comprised of digital sensors, networking communication protocol, computer server configurations, and a graphical machine-man interface; and*
>
> *WHERE AS, Powerweb is also the developer of custom "stand-by generation" capacity credit programs which utilize the above mentioned technologies to sell back capacity on the open market as well as leverage energy procurement in deregulated electricity territories;*

The Agreement goes on to state that all of these above mentioned technologies (the three paragraphs above), inventions, and energy resale strategies are collectively known as "Energy Technology." These three clauses describing the "Energy Technology" can be separated into 1) Hardware (paragraph 1), Software (paragraph 2), and the business concept of developing customer stand-by generation for capacity credit programs (paragraph 3). Each of these three technology attributes is discussed separately below.

Hardware (paragraph 1 in the Agreement)

The Powerweb system consists of three hardware components – 1) the CPU, which contains the front-end" software, 2) TCPIP network devices/sensors, and 3) the communications network (both local and customer level). Digital sensors are installed within the facility on an Ethernet network. These relays and sensors are connected to the existing energy management system using proprietary translation software. These sensors and relays are used to digitally control energy consumption and purchasing energy in a real-time environment.

---

[1] The due diligence review that was performed as a "Preliminary Technical Review." While this review recommended continued investigation, it contained the caveat that "the capabilities, which are professed by Powerweb, are taken at face value at this time."

From the material provided by Powerweb and the deposition of Mr. Lothar Budike the hardware in the Omni-Link® systems appears to consist almost entirely of off-the-shelf components. The only exception may select sensors that Mr. Budike claims to have patented.[2,3]

Software (paragraph 2 in the Agreement)

The "Front-End" software[4] performs three primary functions: translates the various communication protocols, provides a graphical user interface and controls the CPU.

The software translates three communication protocols: DDE (used by BAS), OPC (used by the process control industry) and ASCII (used for electrical metering) in order to bring a variety of information streams through the "front-end." Once this information is placed into the "front-end" it acquires other information from network devices and TCPIP connections to allow the CPU to execute responses based on all of the acquired system information.

The software also consists of a graphical machine-man interface. This graphical layout is adaptable to the clients needs and is easily configured. In Powerweb's marketing material provided during the due diligence period the Omni-Link® software was claimed to have the following set of functions[5] – Supply-Side, Demand-Side Services and Network-Side Services:

Supply-Side[6]

1) Standby Capacity Sales – use stand-by generation to create virtual capacity to be sold on the open market.
2) Leveraged Purchasing - i.e. the ability to negotiate better pricing with (other) suppliers by offering a risk hedge to the supplier during peak, high energy-cost periods on the open market by dropping load.

---

[2] Mr. Lothar Budike deposition p.179 line 14 – p. 204 line 23.

[3] The counterclaims by Powerweb throughout the duration of this case does not include any patent infringement claims, so I did not perform an in-depth analysis of the patents other than to review them to obtain a better understanding of the technology.

[4] October 12, 1999 Letter from Mr. Budike to Mr. Kirk Hampton, p. PW00014 - PW00016.

[5] Taken from Materials delivered to Mr. Kirk Hamption of NewEnergy by Powerweb in response to a due diligence review meeting, October 14, 1999.

[6] Oral Deposition of Martin Anderson in response to the question: "With the programs that were written and functioning as of September 19th, 2000, did Powerweb have the ability to provide load curtailment services? " His answer was: "I don't think that the software programs and the hardware was available at that time to do so." (p.96, lines 5-9). On page 84, lines 17-23 he indicated that the capability to control on-site generation was not functional prior to the September 2001 Baltimore Gas & Electric (BG&E) contract. BG&E reported that there were continuous problems with this functionality (oral deposition of Ms. Ruth Kiselwich, p. 51 line 13 to p.52, line 19). In addition, Mr. Anderson indicated that other aspects of the software platform such as the capability to respond to real-time prices, were likely not operational in Spring 2000. As Marketing Director, if they had been operational, he believes he would have seen them. For example, in response to a question in his oral deposition regarding whether the energy usage engine available in a functional form in August of 2000, he responded "To my knowledge, it wasn't fully functional at that time and I don't recall seeing a partially functional engine at that time." (page 57, lines 7-11). As another example, when asked, "when do you believe the first time the real-time metering engine was available, as described here? His answer was "When the BGE project was done, because that was the time that the availability to communicate with the on-site server that connects to the meter was finally worked out."

3) Real-Time Peak Shaving - The ability to turn on generators in a real-time environment to reduce actual electrical cost but also monitor the market conditions to make the proper shedding decisions.
4) Real-Time Purchasing- allows reduced internal supply risk with unstable market conditions.

Demand-Side[7]

5) Repair & Maintenance Reduction- remotely diagnoses and controls HVAC operations to prevent equipment failure, eliminate false service calls, and execute efficient operation.
6) Air Quality Efficiency Control - remotely monitors carbon dioxide, VOCs and other indoor pollutants to regulate the outside air intake.

Network-Side Services[8]

7) Switch / Circuit Pack Monitors – Circuit pack failure is the most common cause of failure and they are sensitive to environmental factors (e.g., humidity, temperature, dust, etc.). Omni-Link® monitors these environmental items and sends out an alarm and automatically executes an HVAC response.
8) DC Battery Monitors – Batteries that operate the switch need to be monitored for charge, voltage and maintenance. Omni-Link® can monitor, dispatch an alarm and automatically execute a response.

There is no evidence that NewEnergy used or viewed this software during the due diligence period. A demonstration CD was provided to NewEnergy for their review, but this demonstration presentation did not include any functioning software.

The demonstration presentation, Powerweb's marketing materials, the software patent and the description of the software in the Non-Disclosure Confidentiality Agreement do not describe communicating with the remote devices via the Internet. Discovery has shown that Powerweb's internet-based software was not built until after the due diligence period.[9] Therefore the Internet link to the customer's sites should not be considered part of the Energy Technology per the agreement of October 11, 1999.

In addition, admissions by Mr. Anderson in his Oral Deposition indicate that, by August 2000, the energy usage engine was not operational, the load curtailment engine was not operational, there was no capability to respond to real-time prices, the energy usage and savings strategies capabilities were not operational, and real-time metering was not available.

---

[7] In response to the question: "Do you know what the saving strategies engine was?" Mr. Anderson responded that he understood its intent – "to allow a customer to look at the effect of shifting their demand from one period of the day to another period of the day, typically from on to off-peak." In response to the question: "Is this an engine which was existent and functional as of August 17th, 2000?" He responded, "To my knowledge, it was not." Based on these answers, it is not clear what comprised the operational functionality of the Powerweb Energy Technology.
[8] These capabilities are pretty unique to telecommunications facilities such as Bell Atlantic, which is consistent with the exclusive agreement for Bell Atlantic, January 7, 2000.

[9] Based on Mr. Joseph Bonner's deposition, he didn't start working on the Internet interface until after he was hired in 2000. So prior to 2000 Powerweb did not have the ability to access the Omni-Link® system via the Internet.

Business Principle/Contracts (paragraph 3 in Agreement)

The last part of the "Energy Technology" in the Agreement describes Powerweb as the developer of "stand-by generation" capacity credit programs, "leveraged energy procurement" in deregulated electricity territories and "sell back capacity."

> *Powerweb brought the business of reselling energy and capacity to AES NewEnergy (which) was my entire concept. (Budike Oral Deposition 1-13-04 p. 682 lines 2-7)*

This portion of the Energy Technology is the least clear. In both Mr. Lothar Budike's deposition and the Non-Disclosure Confidentiality Agreement this concept is referred to as a "program."

> *We designed a **program** that took the retail asset of the customer and started to give the value back to the consumer for using that asset in either two programs we designed; leveraged energy procurement and reserve capacity sales. (Budike Oral Deposition, 1-13-04, p. 299 lines 5-10)*

"Powerweb is also the developer of custom "stand-by generation" capacity credit **programs.**"[10] The term "program" may refer to an ISO demand response program, and demand curtailment program of a retail energy provider or a software program. In his oral deposition, Mr. Budike attempts to clarify:

> *It's the program and the corresponding contract -- that enables that transaction to take place.... I mean a program like ALM is a program. Load response is a program. Load curtailment is a program. (Budike Oral Deposition, 1-13-04p. 230 line 14 – p 231 line 1)*

When asked questions about the resale contracts, Mr. Budike referred all questions to Mr. Andrew Bakey. Information gained from PJM, indicated that Mr. Andrew Bakey was a participant in the Active Load Management (ALM) working group at PJM in 1999 where the concept of having customers now served by unregulated suppliers be able to participate in load management and capacity markets was one of the principal topics addressed by this working group. In his oral deposition, Mr. Andrew Bakey states:

> *I can emphatically say I was the first person in the entire United States to come up with the concept of buying capacity from a customer who no longer was a regulated customer of a utility company. (Bakey Oral Deposition, February 19, 2004, p. 44).*

This concept, allowing customers not served by regulated entities to sell capacity into the Active Load Management (ALM) program this was one of the topics discussed at the PJM ALM working group and, that as a stakeholder process, it is a public forum.[11] This group had a variety of market participants in attendance at these public stakeholder forums. As a result, this business concept, to the extent it could ever be termed proprietary given the widespread participation on the ALM program, it must now be considered as being in the public domain as of 1999 simply given those public working group discussions.

---

[10] Non-Disclosure Confidentiality Agreement signed October 11, 1999.
[11] Based on a telephone conversation with Mr. John Reynolds of the PJM ISO on April 28, 2004.

One contract was proffered by Powerweb as an example of their proprietary contracting procedures. This contract was discussed in Mr. Bakey's oral deposition on February 28, 2004 as being part of Powerweb's intellectual capital and typical of contracts that would have been executed in 1999. The contract was entitled ALM Credit Purchase Agreement (#NE-59) and according to Mr. Bakey was executed in 2000. I compared this contract with contracts used by NewEnergy for customers participating in PJM ISO and NY ISO programs. While there are similarities, as with most all contracts (e.g., term, cancellation, confidentiality, etc.), the NewEnergy contracts were more complete and comprehensive in their terms. As a result, I do not see any intellectual capital or proprietary information with any aspect of the contracting process for capacity reserves.

Finally, it is not clear who Mr. Bakey was representing when these concepts were being developed. Mr. Bakey worked for Conectiv in early 1999 and acknowledges a letter written from Conectiv to Rhone-Poulenc addressing the business concept of capacity sales by discussing what Conectiv would pay for capacity credits (Oral Deposition, P. 69 lines 1-5). This letter discussing the business concept of capacity sales was prior to when Mr. Bakey met Mr. Budike and suggests that the concept of capacity sales may belong to Connectiv. He was a consultant with EPEX from April 8, 1999 to December 31, 1999, and he apparently did some consulting work with Powerweb in 1999. However, he did not sign an employment agreement with Powerweb until August 1, 2000. While at EPEX, Mr. Bakey did engineer a sale of capacity from a customer to an unregulated LSE. Specifically, this was a transaction between SmithKline Beecham and Select Energy using a contract that Mr. Bakey helped "conceptualize." In addition, Mr. Bakey, in an e-mail to Powerweb in November 1999, indicated that he wanted to protect EPEX's trade secrets from New Energy (NE-059). This suggests that the capacity sales contract may belong to EPEX.

Given this exchange, there would seem to be doubt regarding whether Mr. Bakey was protecting Powerweb's proprietary trade secrets or EPEX's trade secrets during the months covered in the due diligence time period. As important is the fact that other industry professionals around the United States were actively developing and implementing load curtailment strategies, all without the help of Powerweb. Many bright people developed innovative approaches for reselling curtailable capacity into competitive wholesale power markets in every region of the country, not just states with retail choice.

As a result, it can be argued that this demonstrable set of load curtailment activities across the country (without the participation of Powerweb), itself negates any argument of propriety regarding the business concept based on paragraph 3 of the Non-Disclosure Confidentiality Agreement where the business concept of selling back capacity is discussed. In any event, the participation of Mr. Andrew Bakey in the PJM ALM workshop – a public stakeholder process – places the business concept of reselling capacity squarely in the public domain.

3.1.2 Post Due Diligence Period Disclosures

As one would expect the majority of information was exchanged during the due diligence period. There are limited number of disclosures after the due diligence period. Communications did take place between Powerweb, NewEnergy and AES CILCO (e.g., with Mr. Andrew Singer and Mr.

Peter Scarpelli), but the materials exchanged during these communications were marketing materials and contained no proprietary information.[12]

The only other significant disclosure of information took place on January 16, 2001 when Powerweb submitted a priced proposal to NewEnergy in response to a draft of specification for load curtailment tool (January 10, 2001 – PW 109). The materials presented in this proposal were in response to the specifications requested by NewEnergy. Powerweb's proposal is simply marketing materials on the technology and some pricing information.

Even if it were determined that the Non-Disclosure Confidentiality Agreement protected technologies provided to NewEnergy **after** the due diligence period, there were no new technologies described in these additional materials provided to NewEnergy.

3.2 Issue #2: Alleged Breach of the Non-Disclosure Confidentiality Agreement

Dr. Fox Penner, in his Expert Report, states that:

> *"Powerweb alleges that contrary to the October 11, 1999 Non-Disclosure Confidentiality Agreement, NE has used the Energy Technology Information and disclosed Energy Technology information to other parties. As a result, PW suffered losses and economic damages."(First Para., p.6)*

This assumption underlies many of Dr. Fox-Penner's calculations. For example, Dr. Fox-Penner examines four separate regions – PJM, NEPOOL, New York and California. For each region, he develops damages in terms of lost LM profits. As an example of this method, for New England (NE) Dr. Fox-Penner states that:

> *"Another set of damages focuses on the profits that Powerweb would have made sales of the Omni-Link® System to NE LM customers in ISO LM programs, and to other NE customers who would purchase the technology in order to manage energy use, but-for the alleged breaches." (2nd para., p. 7)*

Extending these calculations to the New York region that stem from NE's failure to protect PW's Energy Technology Information. As a specific claim, Dr. Fox-Penner states:

> *"PW alleges that NE failed to protect the Energy Technology Information in NE's Business relationship with Verizon, who now employs the Energy Technology Information for its own benefit without involving NE or PW in the economic benefit obtained."(last para., p. 7)*

This alleged breach has two components – 1) USE – i.e., that NewEnergy has used the Energy Technology Information; and 2) DISCLOSURE – that NewEnergy disclosed Energy Technology

[12] In his Oral Deposition, Mr. Scarpelli acknowledges seeing "demos" of Powerweb's offerings at trade shows (P. 62, lines 5-9) with the comment that these are done all the time. In addition, he stated that he received a marketing brochure.

Information to other parties. Taken together, these allegations drive the estimates developed of Powerweb losses and economic damages.[13]

Each of these two contentions will be addressed separately below.

3.2.1 Use of the Energy Technology Information

The Expert Report by Dr. Fox-Penner develops estimates of damages based upon the assumption that NewEnergy inappropriately used Powerweb's technology. No specific allegations have been made, but based on the Expert Reports this seems to fall into three categories:

Point 1) The fact that NewEnergy participated in ISO load response programs without including Powerweb.

Point 2) That NewEnergy now offers a web-based energy information software program (WebJoules) free to customers rather than using Powerweb's Omni-Link® software.

Point 3) Use of the Proprietary Concept of Curtailment Programs or Strategies.

3.2.1.1 NewEnergy Participation in Load Curtailment Programs as a Breach

The simple fact is that the ISOs have set out rules for participation in their load curtailment programs completely absent substantive influence by Powerweb. The rules for participation are clear, the business concepts are laid out, and the resulting contractual terms stem directly from the ISO program design and rules and from common contracting knowledge. NewEnergy is a member of the four ISOs that were examined by Dr. Fox-Penner and it is inconceivable that NewEnergy's participation in demand response working groups across all of these ISOs would not have revealed the ISO-directed processes for participation in their load curtailment programs. As a result, participation in any ISO program is completely independent of any interaction with Powerweb and, given the highly public nature of the stakeholder process among all these ISOs in program design, all of this information is, simply stated, common knowledge that would have come about whether Powerweb had existed or not. This industry developed independently through ISO processes that were developed to continue to use curtailable loads (as they have always been used) in the utility industry for capacity reserves and load management. This was not an industry that was pioneered, or even influenced by Powerweb and there are no unique, proprietary concepts developed by Powerweb that have influenced this industry.

In addition, there is ample evidence that NewEnergy was actively involved in seeking out load curtailments. Examples, among others, include:[14]

1) The letter sent from Mr. Harry Davitian of NewEnergy to Mr. Edward Kulik of the Water Street Corporation of New York City stating NewEnergy's offer to buy available capacity at $30,000 per megawatt for installed capacity. This is a classic reserve capacity transaction.

[13] Powerweb also is claiming damages arising from alleged interface with its contract with BG&E
[14] All of this information comes out of the relevant depositions, or materials produced in this case.

2) Work done by NewEnergy and ETI, Inc. at one of NewEnergy's customers, i.e., TrizecHahn, to develop a web presentment for energy use information and the use of TrizecHahn as a testing site on the production server for the curtailment project.
3) The 1999 pilot of a load curtailment project by AES Cilco and the resulting 2000 load curtailment offers by AES Cilco.
4) Demand curtailment efforts were also being undertaken by NewEnergy in California.

As a result, NewEnergy was involved with the use of load curtailments and standby generation for capacity credits prior to any interaction with Powerweb, and NewEnergy's participation in the ISO Load Response Programs is entirely based on common industry knowledge and rules, procedures, and processes developed by the ISOs, without substantive influence from Powerweb. Customers participating in these programs have selected their own energy information processes and curtailment management protocols, and even if NewEnergy offered Omni-Link® many customers would not have wanted to pay for that service. It is implausible, as assumed by Dr. Fox-Penner, that Powerweb would have received revenues for its technology (or technology components) from all the NewEnergy customers that participate in the ISO programs.

As a case in point, the decision Verizon made to participate in the NY ISO load management program was made for reasons independent of both Powerweb and NewEnergy. Verizon chose to participate in the New York ISO programs because they could get technical assistance at no cost from NYSERDA and participate with no risk. This reason is clearly stated by Mr. Metz of Verizon in his oral deposition - ElectoTech (i.e., ElectroTek) was a selected Technical Assistance (TA) contractor by NYSERDA and it was the NYSERDA program and grant that allowed Verizon to utilize at no cost ElectroTek. ElectroTek has been in the energy information services business as long as Powerweb and uses a different technology approach. Nothing NewEnergy might have revealed about Powerweb's technology (even if any of it could be considered proprietary) had any influence on Verizon's decision. (See oral deposition of Mr. Jeremy Metz, p. 99, lines 8-25)

3.2.1.2 NewEnergy's Use of Web-Based Energy Information System

The allegation that NewEnergy has used Powerweb's Energy Technology Information to develop a competing product is stated in the Counterclaims as

> *New Energy has used the confidential proprietary information to develop a software system to compete with Omni-Link® and to interfere with Powerweb's existing and prospective economic relationships with commercial customers. (para. 188, p. 28)*

Powerweb in its counterclaims state that:

> *The Confidentiality agreement specifically prohibits NewEnergy from using information it received in its confidential relationship with Powerweb to start a rival business. (para. 110, p. 15)*

And:

> *NewEnergy used the confidential proprietary information to develop a software system to compete with Omni-Link® in the reserve capacity sales market. (para. 180, p. 27*

The only energy information software product that NewEnergy developed and offers to its customers has been WebJoules. This software is substantively different than the Omni-Link® technology and has been developed independently. Work on developing WebJoules started before any interactions between Powerweb and NewEnergy took place, and objectives of the two efforts are different. Omni-Link® focuses on dispatching stand-by generation as specified in paragraph 3 of the Energy Technology definition contained in the Non-Disclosure Confidentiality Agreement. WebJoules does not control or dispatch any equipment. Instead, it is an energy information package.

There is no dispatch or control element to this software package and it is not meant to serve as a curtailment engine that would drive Powerweb's proposed concept of creating custom stand-by generation for capacity credits. There is no requirement that WebJoules users even have generation capacity. The use of backup generators was an integral part of all of Powerweb's joint efforts with NewEnergy (e.g., the Bell Atlantic proposal was based on the use and dispatch of standby generation at the telephone company's central offices). WebJoules is far from that concept.

Tracing back the history, NewEnergy's WebJoules originated with Mr. Keith Mistry and Energy Tracking, Inc (ETI). ETI was launched in 1998 to provide Internet access to the acquired data, the savings data, the billing calculations, and the energy usage information. (See oral deposition of Mr. Keith Mistry page 27 lines 4-10)

Also during the summer of 1999, ETI submitted a proposal to BOMA Atlanta. This proposal is a good reference of the state of ETI's technology at this time. Exhibit DV-1 in Attachment C recreates the tables from page 6 of ETI's proposal comparing BOMA's requirements for services against ETI's core capabilities. From this table, key functions included in ETI's technology included energy and demand monitoring, energy costs, warnings and alarms, multi-site aggregation, real-time pricing, drill-down profiling, query meters, and activate/deactivate loads among other functions. While it is difficult to exactly match the functionality of any two sets of offered technologies, substantive functionality that was claimed by Powerweb is also found in ETI's technology in the summer of 1999.

> *"Energy Tracking provides our clients Automatic Meter Reading systems and Revenue Grade Power Metering systems for Commercial, Industrial & Residential applications. Internet access allows our clients to obtain their Load Profile or Data for single or multiple sites. Our clients are able to access their password protected data and graphic reports using a standard web browser. ETI's Parent corporation, Ohm Tech Labs, continues to address the Performance Contracting and Demand Side Management arena providing data acquisition and engineering services."*[15]

This is essentially the same software that NewEnergy is still marketing under the WebJoules brand. The description of the current generation of WebJoules from NewEnergy's website is essentially unchanged:

---

[15] ETI Energy Tracking : AMR / Automatic Meter Reading Solutions, Nationwide Energy Tracking & Profiling, Web Access., revised April 20, 1999. Energy Tracking Inc., viewed May 2, 2004, <http://web.archive.org/web/19990427113434/http://www.energytracking.com/>.

> *"WebJoules is an Internet-based energy information service designed to bring energy information to your desktop, 24 hours a day, seven days a week. There are no costly software installations or licensing fees to pay—you just need access to an Internet browser. ...WebJoules can help you manage your energy usage by providing powerful Internet-based energy information management tools. WebJoules enables you to see how your energy is consumed. Use WebJoules and the Internet to bring basic energy data and information, 24-hours a day, seven days a week to your desktop."*[16]

In summary, the only software product that NewEnergy has that has similar functionality is WebJoules. I have researched the history of WebJoules and its functionality. First, WebJoules is based on business and information concepts that have been in the public domain and are not proprietary, it has a different set of functionality, and it does not address what appeared to be the core concept of Omni-Link®, i.e., the ability to dispatch standby generation.

As a result, I conclude that the two pieces of software were developed independently and that that was no breach of confidentiality.[17] Exhibit DV-2 in Attachment C summarizes distinctions between these two pieces of software.

3.2.1.3 Use of the Proprietary Concept of Curtailment Programs or Strategies

Powerweb not only indicates that its Energy Technology consists of hardware and software, but also of custom programs and strategies. While it is certainly not clear in the Confidentiality Agreement, Powerweb believed that it had a confidentiality and proprietary claim on the business concepts related to standby generation credits, contracts and business protocols. However, in Powerweb's counterclaims, this issue stands out. Specifically, in its counterclaims, Powerweb claims to have "pioneered the reserve capacity sales business." (para. 206, p. 32). Additional claims by Powerweb include:

> *"Powerweb immediately saw an opportunity, one that no one else had identified to date, to utilize untapped electrical resources (through on-site generation or load reduction) to provide significant savings to large commercial energy customers". (para. 94 p.11)*

This claim is unfounded, and stretches any reasonable analysis of the industry to the point of incredibility. Powerweb claims to have essentially invented the concept of using customers' on-site generation or load reduction capabilities for capacity credits. This is a completely unreasonable claim.

> *Powerweb .... had already spent an enormous amount of time and money developing a program to implement a buy-back program and resale of electricity in the energy market. After extensive research and development, Powerweb authored the contracts necessary to*

---

[16] Constellation NewEnergy, revised April 2, 2003. Constellation NewEnergy, viewed May 2, 2004, <http://www.newenergy.com/webjoules/>.

[17] Powerweb may claim that material provided to NewEnergy in a "Proposal for Distribution Generation Platform" (Exhibit PW 110) was also covered by the Confidentiality Agreement dated October 11,1999. We have reviewed this material and the WebJoules product and don't see any causal relationship between the material and the WebJoules product.

> *achieve a resale of electricity in the energy market while ensuring that the concept satisfied all of the applicable government regulations. This contracting information was extremely confidential and proprietary. (para. 114, p. 16)*

The belief that there were any confidential and proprietary aspects to the contracting for buy-back and resale of energy is unfounded. The number of transactions between customers and energy suppliers occurring in the Northeast, across the United States, and even internationally makes this assertion untenable.

In addressing these issues, it must be recognized that NewEnergy was already in the load management and curtailment business, having implemented technology for load management and curtailments in the summer of 1999. The technology and contracts were completely independent from any interaction with Powerweb. As discussed above, the concept of using standby generation for capacity reserves/credits was established by NewEnergy in April 1999. A letter from NewEnergy to the Water Street Corporation in New York City offers to pay $30,000 per MW for installed capacity at their site. AES Cilco had implemented a load curtailment pilot in 1999 (Oral Deposition of Mr. Peter Scarpelli, p.29 lines 16-17).

Therefore, this concept was already familiar to NewEnergy. Other NewEnergy personnel indicated that they were familiar with this concept and using it prior to the Agreement with Powerweb (See oral deposition of Ms. Deirdre Lord, p. 199, lines 3-13).

Contracts for the use of load management and standby capacity for reserves have been used by energy suppliers for over 20 years. These contracts include penalty provisions, out-clauses in contracts, buy-through provisions, trade provisions (with another customer) to avoid being called, and numerous other business concepts that extend beyond any information on contracts or business concepts made presented by Powerweb in support of its claim to have "pioneered the concept" of capacity sales. Overall, there was no information in the case materials to support Powerweb's contention, and numerous examples of innovative load management and capacity sales in all regions of the United States illustrating that this concept was not in any way unique to Powerweb.

3.2.2 Confidentiality of the Energy Technology

The Agreement also states "Confidentiality shall not apply to information already in the public domain, or common knowledge." The direct evidence available and the review of NewEnergy technology capabilities indicates that the functions that comprise Powerweb's Energy Technology were, in some cases, already being used by NewEnergy prior to the signing of these agreement and in all other cases the function concepts of the technology was common industry knowledge and, therefore, in the public domain.

A review of the load management and curtailment providers in the industry shows that there were numerous providers during the time frame Powerweb interacted with NewEnergy and claims to have proprietary Energy Technology Information. The depth and breadth of this industry results in the functionality that is delivered by Powerweb's Energy Technology Information falling into the category of "common industry knowledge." As was indicated

previously, the concept of having customers, who are served by unregulated suppliers, able to participate in load management and capacity markets was one of the principal topics addressed by the PJM ALM working group. Discussion of this topic by the working group makes it a public domain business concept.

Focusing on the functionality and the services offered is the best way to compare technology sets between single vendors or between integrated vendors and a combination of vendors that might provide the same functionality. Several reviews of procurement point out the advantages of buying a solution in pieces rather than buying a fully integrated solution. E Source (1997) states:

> *In other words, the service, platform, and communications system are bound together and cannot be unbound by the system user. ... but the problem with this is that it is asking the system adopters to 'pick a winner' in all three areas at the same time. This is clearly impossible to do without taking high levels of risk.*

This industry policy was upheld by Mr. Metz of Verizon when he states in his oral deposition:

> *I never really considered moving forward with NewEnergy. To me, and the way we do things in sourcing, for example, is we try to identify -- you know, we try to disaggregate proposals and identify who would be the best provider of a specific service for us, at least that's how I do things in my energy area.*

As a result, there can be a preference for selecting best-of-breed pieces rather than accepting an integrated solution, which may have one good piece, but have one or more other pieces that are sub-par.

The key for any technology solution is meeting the customer's needs and this is done by delivering the required functions independent of the specifics of the code and programming language used. In fact, Mr. Lothar Budike admits this in his oral deposition:

> *The code is immaterial, like I think I was describing in my last deposition. The code could be any open source language such as Linux or it could be a closed language such as Microsoft. But at the end of the day, code is code. Depending on what type of system you're operating your business on depends on the type of code. The key factor is the process of the applications, what does that application show and how does it show it? (Oral Deposition, 1-13-04, p. 670)*

As a result, my analysis focuses on whether technologies available from various vendors could accomplish the same objective for the client, i.e., implement a curtailment program, and I did not focus on the inner workings of the technology.

E Source, Inc. is a company that conducts research on energy technology for subscribing clients. In the late 1990s it published a series of reports on "Distributed Energy." These reports have numerous examples of technology offerings with very similar functionality to that offered by Powerweb's Omni-Link®. The E Source series of reports from the "Energy Information and Communication Service" demonstrates vendor and technology capability in the areas of metering, data presentment and analysis easily the equivalent of what Powerweb offered. In the E Source Report EIC-2 (December 1997), it states "Virtually every week there is an

announcement of a new party offering energy information services." The report contains an appendix with a directory of 44 companies providing various types of energy information services. This includes names that have been mentioned in this proceeding EnerWise and Energy Interactive among the 44 companies.

According to a 1995 E Source report, ("Real-Time Pricing and Electric Utility Industry Restructuring," April 1995) Virginia Power had developed stand-by generation control systems allowing the utility to dispatch customer-owned stand-by generators. In a 1997 E Source Report, a model is developed showing how loads can sell interpretability into the grid. A 1998 E Source report (PQ-2) cited projects by Carolina Power & Light, Madison Gas & Electric, and Williams Energy to use backup generators during peak periods. In addition, more than a dozen utilities are referenced as having developed and implemented "load management energy cooperatives" that provide for dispatchable demand reductions on a pooled basis.

In addition to these E Source reports, many companies were presenting load management and curtailment concepts to professional conferences throughout the country. An October 1997 presentation by Planergy shows a curtailment process scheme, and information on the EnFlex Gateway Network available in the October 1999. The EnFlex technology was able to accomplish many, if not most all, of the curtailment functions and objectives claimed for the Powerweb curtailment engine and related software.

The October 1999 meetings of the Peak Load Management Alliance also contained a demonstration of an implemented web-based trading platform for curtailable loads in Georgia clearly demonstrating field-tested, operational trading and curtailment technology. E Source also reported that Georgia Power Company was operating a capacity trading program since June 1999 called the Interruptible Exchange program. Customers bid to accept capacity or offer it into the program with Georgia Power matching buyers and sellers.

The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) also provides useful information. One important ASHRAE report is: "Utility/Energy Management and Controls (EMCS) Communication Protocol Requirements," sponsored by ASHRAE Research Project 1011-RP, July 1999. The ASHRAE report includes a discussion of selected products that were commercially available at that time. For example, two commercially available products for the automated transmission and processing of Real-Time Pricing (RTP) information were EnerLink (a subsidiary of SAIC, Inc.) and Honeywell's entire software suite called Real-Time Pricing. EnerLink offers an entire suite of software products to energy suppliers and energy users for various aspects of load monitoring, rate analysis and RTP rate dissemination, flexible billing, and other administrative functions. Honeywell provides a turn-key solution for automated operation, which completely automates the operation of facilities in response to time-varying rates. It includes gateway communications modules for both utility and customer, and RTP controller, and device strategies. Extensive detail on the Honeywell technology can be found in the Patent entitled "Real-Time Pricing Control Systems and Methods Regarding Same" (WIPO, 1997). Honeywell showcased this technology at the Marriot Marquis Hotel in New York City in 1995, the World Financial Center in New York City, and the Marriot at the Moscone Convention Center in San Francisco.

The ASHRAE report states that as of June 1999 real-time pricing information broadcast services currently exist and have been widely applied to commercial/industrial and residential customers. This includes the dynamic data exchange (DDE) approach in which on-line price data are instantly updated at the customer's EMCS software. This contrasts sharply with information provided by Mr. Joseph Bonner in his oral deposition of February 28, 2004 where he states that as of March 2000, he believed that the extraction of the PJM pricing data was a unique aspect of Powerweb's pricing engine. (Oral Deposition p. 166 lines 19-21)

Other data sources have been identified with product literature and references to utility decision-making processes regarding load curtailment options that indicate the availability of alternative suppliers with similar types of functionality. One E Source Report (EIC-14), states that there are dozens of meter data analysis service companies delivering information over the Internet with profiles on 22 companies in this market space.

In addition to Powerweb's allegation of disclosure to general marketplace, there is a specific allegation of disclosure to Verizon. The issue of lost revenues that Powerweb would have been entitled to receive from Verizon's participation in load management programs is easily addressed by Mr. Jeremy Metz's Oral Deposition. With respect to the NewEnergy/Powerweb proposal submitted to Bell Atlantic (now Verizon), Mr. Metz, in response to a question about whether there was ever a definitive decision by Bell Atlantic to not proceed with Omni-Link®, stated that it was:

> *Not as much a decision not to proceed as we couldn't get their agreement to proceed; so, we could not participate in New Jersey because the network operations management was not willing to participate in the Bell Atlantic -- in the New Jersey market.*

This is a clear statement regarding the reason for not proceeding with a capacity sales agreement in New Jersey using the Powerweb technology. Mr. Metz states that Verizon/Bell Atlantic did not participate in a load management program in the year 2000, but did in 2001. The process by which this happened did not involve any interference, information disclosure or action on the part of NewEnergy. Verizon did participate in the NY ISO Emergency Demand Response Program, Energy Program and Special Case Resources Capacity Program through a consultant that it hired as its load aggregator after receiving a grant from NYSERDA.

There is no information in the case record nor from the industry review indicating that Powerweb's Energy Technology was unique, novel or otherwise functionally different than other vendor technologies that were participating in that same market and discussed in public forums. Therefore, NewEnergy cannot have breached the confidentiality of the agreement.

3.3 Issue #3: Competition in the Market

Finally, the Lost Profits Report Prepared for Powerweb, Inc. by Pappas and Company makes assumptions about the market position of Powerweb in terms of its ability and likelihood of winning various contracts it had not been awarded. The Lost Profits Report states:

> *"NewEnergy's failure to maintain the confidentiality of Powerweb's energy technology information created premature competition before it would have arisen naturally. As a result of the premature competition, Powerweb lost 13 contracts."(pages un-numbered, but by count it is page 5, first paragraph).*

As a result Powerweb asserts that it would have won all 13 contracts but for "NewEnergy's failure to maintain confidentiality of Powerweb's energy technology information created competition before it would have arisen naturally." (pages not numbered, but p. 5 by count).

In its counter claims, Powerweb states that:

> *Powerweb's technology revolutionized the energy industry and has provided energy suppliers the ability to sell consumers new energy products and services that generate additional revenues in the hundreds and millions of dollars. (para. 90, p. 9)*

And:

> *Powerweb immediately saw an opportunity, one that no one else had identified to date, to utilize untapped electrical resources (through on-site generation or load reduction) to provide significant savings to large commercial energy customers. (Para. 94, p. 11).*

These claims are simply unfounded and cannot be supported by any reasonable analysis of the energy industry during the time frame Powerweb claims to have developed this technology.

With respect to whether Powerweb might have had a unique position in the market that would have allowed it to win all 13 contracts that it had lost, numerous citations are available that demonstrate that technologies from other vendors offered the same substantive functionality and a number of vendors offered technologies with functionality beyond that offered by Powerweb.

Statements made in the counterclaims made by Powerweb that are directly contradicted by the evidence and industry review are:

> *The Omni-Link® System offered utility companies, energy service providers, and consumers a unique approach to achieve hundreds of millions of dollars in potential savings that would otherwise be unrealized. The Omni-Link® System was the only one of its kind. (Para. 100, p. 11)*

The claim that the Omni-Link® System offered a "unique approach" and was the only one of its kind is also untrue. There were many companies in this technology and market space that offered the same functionality if not enhanced functionality over the Powerweb "technology."

> *Powerweb discovered that NewEnergy was using "Energy Technology" by marketing Powerweb's energy trading concepts to customers throughout New Jersey, New York, and Pennsylvania in direct violation of the Confidentiality Agreement ...(Item 125, p. 17)*

As discussed above, the concepts that Powerweb brought to the market during its initial interactions with NewEnergy were well known and acted upon by many market actors, and the "Energy Technology" referred to in "Non-Disclosure Confidentiality Agreement" was based on

functionality that was publicly advertised by other market actors and vendors working with energy suppliers and commercial energy users. The concepts and technology functionality relied upon by Powerweb in its "Energy Technologies" were so widely utilized in the industry at the time of the agreement and during the time Powerweb developed its own capabilities such that none of the applications that NewEnergy has marketed to customers could be viewed as a breach of this agreement.

Powerweb claims that it's "technology revolutionized the energy industry" and that:

> *Upon information and belief, NewEnergy has improperly shared some or all of the "Energy Technology" information with numerous third-parties that have used the information to compete with Powerweb and the Omni-Link® System. (Item 132, p. 19)*

The concepts and technology functionality that Powerweb brought to the market during its interactions with NewEnergy were well known and acted upon by many market actors. In fact, these concepts were the subject of numerous public conferences, workshops, and actually led to the development of a trade alliance dedicated to promoting knowledge about capacity trading and load management. This trade association, the Peak Load Management Alliance, was founded in October 15, 1999 and its members encompass technology providers, software vendor, utilities, consulting firms and other market actors interested in further development of electricity markets by advancing the use of capacity credits and load curtailments. These are the very concepts that Powerweb claims to have pioneered. This is amply demonstrated in the listings of firms offering such functionality in the E Source and ASHRAE reports cited above. In fact, Mr. Metz of Verizon states in response to a question about Powerweb:

> *"I mean, he seemed to have an interesting system; I thought enough of it to say, you know, we'll investigate, but I knew of other systems that did the same thing and it was not the system we used for measurement."(Oral Deposition, p. 104, line 16-20)*

For the reasons cited above, there was no breach of the non-disclosure agreement as the concepts and technology functions that were being offered by Powerweb were also being offered by numerous other companies prior to any agreement between Powerweb and NewEnergy. In addition, the ongoing discussion, public debates, offers of services in the areas of capacity reserves and load reductions by commercial customers in electric markets were so pervasive during the period that Powerweb and NewEnergy interacted resulted in voluminous public information on both concepts and technology of all sorts, and there is no reasonable claim by Powerweb regarding the proprietary nature of the concepts and technology functions on which its offers to customers were based.

PJM also was actively promoting these concepts and working groups to initiate ideas. In addition to the PJM ALM working group instituted in 1999, PJM formed a Distributed Generation User Group with its first public meeting being held on June 14, 2000. This users group developed (on its own) a PJM reliability program that would provide back-up generators that choose to participate in the program with capacity credits.

Powerweb was not in a position of "unique market advantage" compared to other firms offering similar services and technology. Simply stated, Powerweb's offering was not unique. In fact,

many of its concepts were developed by other market actors in advance of Powerweb's development of its offerings. In addition, it was already the case that numerous capacity reserves and load curtailment activities were being undertaken by energy suppliers and large commercial energy users prior to the Powerweb's interactions with NewEnergy. This market activity has continued among a robust number of energy suppliers and commercial customers using a wide variety of enabling technologies and processes that could substitute for those offered by Powerweb. Over the past decade and preceding the confidentiality agreement, there have been a number of companies that have had capabilities essentially the same as Powerweb's, if not more advanced in their application. It is also not clear that all 13 of these contracts were awarded at all – the utilities could have decided to do nothing or to go with a simpler in-house solution. As a result, the claim that Powerweb lost 13 contracts (with un-named utilities for un-specified requested services) as a result of premature competition due to NewEnergy's alleged breach of the confidentiality cannot be supported by information reviewed in this case and by industry analyses.

4.0 Summary and Conclusions

My review of the two Expert Reports prepared for Powerweb used to estimate economic damages (Dr. Fox-Penner, April 2004) and lost profits (Pappas and Company, March 2004) are both based on assumptions that are not reasonably supported by an examination of the information available in this case and are not supported by an expanded analysis based on industry documents. Powerweb "Energy Technologies" as represented in the Non-Disclosure and Confidentiality Agreement was based on business concepts and functionality that were well known in the industry, had been the subject of working groups and user groups at the PJM ISO (and other ISOs), and there were a number of vendors with competitive offerings, both at the time of the signing of the confidentiality agreement and today.

In addition, there are no indications that NewEnergy used the Powerweb Energy Technology Information. In fact, the available information shows the contrary, i.e., that NewEnergy had technology that provided energy information and curtailment capabilities prior to any agreements signed with Powerweb. In addition, NewEnergy was in the curtailment business prior to signing any agreements with Powerweb, including an offer to buy capacity through a letter sent to the Water Street Corporation in New York City on April 29, 1999 – six months before the Non-Disclosure Confidentiality Agreement. In addition, AES Cilco was involved in a curtailment pilot program in the winter of 1999, and NewEnergy had tested a curtailment algorithm at TrizecHahn during the summer of 1999 with a product that eventually led to the current NewEnergy offered software called WebJoules through an independent development path.

In conclusion, the key assumptions on which the Fox-Penner economic damage claims are estimated simply do not hold up to an assessment of the direct evidence in this case and are not supported by supplemental industry analyses. Similarly, the Lost Profits Report is also based on foundational assumptions that are not supported by direct evidence and cannot be assumed to be true since they run counter to information gathered from the supplemental industry analyses. As a result, these damage estimates are not based on claims that have a reasonable foundation in the direct evidence available in this case nor are they supported by supplemental industry analyses.

ATTACHMENT A –

RESUME OF DANIEL M. VIOLETTE

EMPLOYMENT HISTORY

- Principal and Founder, Summit Blue Consulting, Boulder, CO, 2000-present
- Vice President, Economics and Analytics, Hagler Bailly Consulting, Inc., Boulder, CO, 1995-2000
- Principal, A.T. Kearney/EDS Management Consultants, Boulder, CO, 1994-1995
- Sr. Vice President, XENERGY Inc., Boulder, CO, 1992-1994
- Sr. Vice President, RCG/Hagler Bailly, Inc., Boulder, CO, 1987-1991
- Cofounder and Sr. Vice President, Energy and Resource Consultants, Inc., Boulder, CO, 1979-1987
- Economist, Energy and Environmental Analysis, Inc., Boulder, CO, 1977-1979

EDUCATION

- University of Colorado, PhD, Economics, 1980
- University of Colorado, MS, Economics, 1974
- Arizona State University, BS, Economics, 1973

PROFESSIONAL EXPERIENCE

In his 20 years of consulting experience, Dr. Violette has conducted assignments for clients across North America related to the design, implementation and evaluation of energy efficiency and energy services products. He also served as the co-chair for retail settlements subcommittee of the Ontario Market Design Committee (MDC).

Internationally, Dr. Violette has conducted energy strategy projects for the International Energy Agency in Paris and for Eastern European countries. He also helped develop energy strategies for industry in Pakistan. Dr. Violette has published over 40 papers in journals and books, made over 60 contributions to published conference proceedings, and contributed to reports to the U.S. Congress prepared by the National Acid Precipitation Assessment Panel (NAPAP) and by the National Commission on Air Quality (NCAQ).

SELECTED ASSIGNMENTS

- Evaluating NYSERDA's peak demand programs (both permanent reductions and callable reductions via the ISO) and their peak management enabling technologies programs in a multi-year project for NYSERDA. These programs cover five investor owned utilities in New York.

- Conducted an independent evaluation of market transformation accomplishments through Northwest Energy Efficiency Alliance (Alliance) efforts since 1997. This retrospective evaluation effort was initiated by an ad hoc committee appointed by the Alliance board of

directors for the primary purpose of determining whether the Alliance has transformed enough markets to justify the costs of the Alliance.

- Co-chaired the 2003 Pricing in Electricity Markets Conference hosted by the Association of Energy Services Professionals International and the Electric Power Research Institute (EPRI). The focus of the conference was "what is working now and what is needed for the future?" Presented a paper at the conference entitled "Pricing in Retail Markets — Innovation and Resource Allocation."

- Evaluated several innovative demand response and pricing programs for Sacramento Municipal Utility District targeted at smaller and mid-market customers as part of a multi-year study.

- Evaluating (along with Quantum Consulting) all of California's investor owned utilities innovative rates, pricing and demand response initiatives in a multi-year research effort.

- Assessed the strategic implications of Demand Response for a distribution utility where the ISO New England is attempting to promote an aggressive program. The full range of programs were examined with NSTAR taking either a lead role in the DR program, a facilitation role, or a relatively hands off approach. A key component of the effort was to calculate the benefits to the distribution company from Demand Response programs.

- Conducted an investigation into how electric cooperatives are utilizing strategic alliances to reduce costs, improve their operations, and better serve their members. The final report, published by the National Rural Electric Cooperative Association in January 2004, presents a process guide for alliance formation and management that can serve as a tool to help cooperatives plan and execute alliance agreements.

- Designed peak load curtailment programs for Louisville Gas & Electric Company and developed evaluation plans for a portfolio of energy efficiency programs.

- Led a number of projects for the Electric Power Research Institute, including developing and conducting training courses on performance measurement, data collection for decision making, authoring a handbook for assessing the performance of energy services programs.

- Led a three-year in-field metering and monitoring for a consortium of seven gas utilities in New England estimating the impacts of energy efficiency equipment in the residential and commercial sectors. Led an effort for a consortium of five New England utilities to examine the influence of utility actions on regional energy use and the markets for energy products.

- Co-authored a "White Paper" for the National Association of Regulatory Utility Commissioners on regulatory issues in the evaluation of energy services programs.

- Managed the analytic tasks of an EPRI tailored collaborative project examining the integration of information from short-term metering of technologies with longer term billing analyses of customers. The participating utilities were Northern States Power and Madison Gas and Electric Company.

- Performed a number of assignments for utilities assessing their customer information systems and how they can be used for performance measurement and market research. These efforts often included the development of strategies for the collection of customer data and market intelligence.

- Designed and conducted training programs and workshops on market and resource planning, as well as performance measurement for a number of utilities. These seminars and workshops have been conducted for professionals at San Diego Gas and Electric Company, Ontario Hydro, Bonneville Power Administration, Hydro Quebec, Public Service Electric & Gas, Arizona Public Service Company, and other utilities. Dr. Violette has also produced and conducted six training seminars on behalf of the Electric Power Research Institute.

- Developed environment strategies, including environmental externality valuation and integration of externalities in utility plans, as well as a number of assignments related to Clean Air Act compliance, including emissions trading, conservation as a compliance strategy, and the evaluation of compliance plans.

CONFERENCE PROCEEDINGS

"Portfolio Analysis of Demand-Side Resources (DSR) – Role in Planning—" presented at the Eighth Annual National Symposium On Market Transformation, Washington DC, March 1st-2nd, 2004

"Making Electricity Markets Work for Everyone" presented at the 2004 Center for Neigborhood Technology and The Community Energy Cooperative Forum, Chicago, IL, February 27, 2004.

"The Natural Gas Crisis - Implications for EE & DR Cost-Effectiveness Analysis" presented at the 14th National Energy Services Conference and Exposition for the Association of Energy Professionals, New Orleans, December 10-12, 2003

"Mass-Market Demand Management Offerings: Evaluation Methods Assessment and Results," presented at the IEPEC 2003

"Pricing in Retail Markets — Innovation and Resource Allocation," presented at the 2003 Pricing in Electricity Markets Conference for the Association of Energy Professionals, in conjunction with EPRI, Chicago, IL, May 14-15, 2003.

"Cost Effective Evaluation of Mass Market Load Management Programs" In *Proceedings of the 2001 International Energy Program Evaluation Conference*, Salt Lake City, UT, NTIS Pubs., Washington, DC, July 2001.

"Opportunities for Load Management in Mass Markets," EEI Retail Energy Services Conference, Chicago, Ill., March 29, 2001.

"Innovative Sales and Pricing Structures — Riding the Waves!" presented at EMACS '98: The 1998 Energy Marketing and Customer Service Conference, The Westin Horton Plaza, San Diego, California, October 15, 1998.

"Convergence of Markets Opportunities and Risks," presented at the American Gas Association's (AGA) Workshop on Unbundling and Affiliate Transactions, Ritz-Carlton Hotel, Arlington, VA, July 9, 1998.

"Convergence - reality or hype?" presented at the Electric Utility Consultants conference on Electric Utility Business Environment, Westin Hotel, Denver, CO, June 24, 1998.

"Stranded Cost Recovery — Understanding the Legislation Affecting New Jersey and States around the Country," presented at the IBC's Fourth Annual Industry Forum on Developing and Negotiating Strategic Mechanisms for Stranded Cost Recovery, Renaissance Washington DC Hotel, Washington, DC, June 23, 1998.

"Electricity Price Forecasts and the Forward Price Curve for Electricity," presented at the EPRI 1998 Innovative Approaches to Electricity Pricing Conference, Washington, DC, June 18, 1998.

"The Business Process Challenges of Retail Competition: Organizational Structures Will Change," Pacific Cost Gas Association's (PCGA) Deregulation Conference, Portland, OR, May 13, 1998.

"Changing Times: Business Opportunities and Risks in the Gas and Electric Industries." Presented at the American Gas Association's (AGA) Marketing and Communications Conference: Betting On Our Customers, Las Vegas, NV, April 27, 1998.

"The Ten Year Perspective: What Actions Need to be Taken Today for Your Firm to be Successful 10 Years From Now?" Presented at *The Fourth Annual Power Industry Forum, Panel Four: Marketing — Heart of the New Power Company*, Infocast, Carlsbad, CA, March 7, 1997.

"North American Energy Measurement & Verification Protocols (NEMVP)." Presented at the AEE Chapter, Budapest, Hungary, November 26, 1996.

"Evaluation of Energy Efficiency Activities: The Keys to Success." Conference materials presented at the *2nd International DSM & Energy Efficiency Strategies Conference*, Copenhagen, Denmark. November 20-21, 1996.

"An Introduction to the Principles and Applications of Market Research for Electric Power Companies." In *Infocast Conference Proceedings — Market Intelligence for Utilities: Obtaining and Analyzing Critical Customer and Competitor Data.*" Denver, CO, July 29, 1996.

"Customer Decision Making." Presentation for *Infocast Conference — The Marketing Institute for the Electric Power Industry*, Atlanta, GA, March 5, 1996.

"Creating Market Opportunities through Energy Services." Opening Plenary Session, *Proceedings of the 1995 Association of Energy Services Professionals Annual Member Meeting*, Association of Energy Services Professionals Pubs., Boca Raton, FL, December 4-6, 1995.

"Customers' Speak — What Customers Need from Energy Suppliers." In *Proceedings of the 1995 Association of Energy Services Professionals Annual Member Meeting*, Association of Energy Services Professionals Pubs., Boca Raton, FL, December 4-6, 1995.

"Assessing Marginal Costs for Competitive Pricing." In *Proceedings of Conference on Competitive Analysis & Benchmarking for Electric Power Companies*, Center for Business Intelligence Pubs., Burlington, MA, November 1995.

"Performance Measurement Concepts and Framework." In *The 1995 Performance Measurement Workshop: Measuring the Performance of Utility Products and Services in an Era of Increasing Competitiveness*, Denver, CO, Electric Power Research Institute Pubs., Palo Alto, CA, November 1995.

"Setting a Research Agenda for Assessing Market Transformation and Spillover," In *Proceedings of the 1995 International Energy Program Evaluation Conference*, Chicago, IL, NTIS Pubs., Washington, DC, #CONF-950817, August 1995, p. 9.

"Evaluation in the Age of Anxiety." In P*roceedings of the 1995 International Energy Program Evaluation Conference*, Chicago, IL, NTIS Pubs., Washington, DC, #CONF-950817, August 1995, p. 859.

"Data Collection and Information Systems: What We've Learned from the DSM Experience." In *Proceedings: Delivering Customer Value — 7th National Demand-Side Management Conference*; Electric Power Research Institute Pubs., Palo Alto, CA, #EPRI TR-105196, June 1995, p. 25.

"Energy Efficiency Evaluation." In *Proceedings — IEA Experts Panel Meeting on Evaluation*, Sponsor: International Energy Agency/Organization for Economic Co-operation and Development, Washington, DC, November 1994.

"Evaluation: Issues, Methods, and Direction." In *Proceedings of Asian Pacific Economic Community (APEC) Inter-Utility Demand Side Management Liaison Group*, Julia Shaver, ed., Oak Ridge National Laboratory, Oak Ridge, TN, October 1994.

"Addressing Uncertainty and the Value of Flexibility in the Second Generation of IRP." Published in the *Proceedings of American Council for an Energy Efficient Economy — 1994 Summer Workshop*, ACEEE vol. 6, p. 231, August 1994.

"The Treatment of Outliers and Influential Observations in Regression-Based Impact Evaluation." Published in the *Proceedings of American Council for an Energy Efficient Economy — 1994 Summer Workshop*, ACEEE vol. 8, p. 172, August 1994.

"Addressing Uncertainty and the Value of Flexibility in Utility Planning." In *Proceedings of the 1994 Integrated Resource Planning Conference*, Electric Utility Consultants, Inc. Pubs., Denver, CO, April 1994, p. 1.

"Discrete Choice Models for Planning and Evaluation of Electric Utility Demand-Side Management Programs," *Proceedings TIMS/ORSA Joint National Meeting*, Chicago, IL, May 1993.

"Data Quality in Program Tracking Systems: The Impact on Evaluation." *Proceedings of the 6th National Demand-Side Management Conference*; Electric Power Research Institute Pubs., Palo Alto, CA, #EPRI TR-102021, March 1993.

"Impact Evaluation and Program Tracking Systems." *Proceedings — 6th National Demand-Side Management Conference: Making a Difference.* Sponsors: Electric Power Research Institute, Edison Electric Institute, and U.S. DOE, Electric Power Research Institute Pubs., Palo Alto, CA, #EPRI TR-102021, March 1993, p. 41.

"Uncertainty in an IRP Process." *Proceedings of the Integrated Resource Planning Conference,* Sponsor: Electric Utility Consultants, Inc., Denver, CO, March 18-19, 1993, p. 289.

"Estimating the Impacts of DSM Programs for Use in IRPs." *Conference Proceedings — Long Range Forecasting for Gas Utilities,* New Orleans, LA. Sponsor: American Gas Association, Washington, DC, March 11-13, 1992.

"A Framework for Evaluating Environmental Externalities in Resource Planning — A State Regulatory Perspective." In *Proceedings of the NARUC National Conference on Environmental Externalities* in Jackson Hole, WY. National Association of Regulatory Utility Commissioners, Washington, DC, October 1990.

"Five Steps through the Clean Air Act — Developing an Acid Rain Compliance Strategy." In *Proceedings of the 1990 Energy and the Environment Conference.* Sponsor: Electric Utility Consultants, Inc., Denver, CO, September 1990.

"Using Billing Data to Estimate Energy Savings: Specifications of Energy Savings Models, Self-Selection and Free-Riders." Published in the *Proceedings of American Council for an Energy Efficient Economy (ACEEE) — 1990 Summer Workshop,* ACEEE, Washington, DC, August 1990, Vol. 6, p. 131.

"Evaluation of a New Home Construction Program: Combining Load Research, Billing Data, and Engineering Estimates in a Consolidated Framework." Published in the *Proceedings of American Council for an Energy Efficient Economy (ACEEE) — 1990 Summer Workshop,* ACEEE, Washington, DC, August 1990, Vol. 6, p. 167.

"Use of End-Use Load Research Data in Statistical/Econometric Evaluations of DSM Programs." *Proceedings — Conference on End-Use Load Information and its Role in DSM* in Irvine, CA. Sponsor: The Fleming Group, July 1990.

SELECTED PUBLICATIONS

"Strategic Alliances: Partnering to Achieve Cooperative Objectives," for National Rural Electric Cooperative Association (NRECA), October 2003, #Project01-06

"Retrospective Assessment of the Northwest Energy Efficiency Alliance" for the Northwest Energy Efficiency Alliance, October 2003, #E03-120

"Electricity Pricing Lessons from the Front" White Paper based on AESP/EPRI Pricing Conference, May 2003, #1002223

"An Initial View on Methodologies for Emission Baselines: Energy Efficiency Case Study," OECD and IEA, June 2000.

"Conventional Pricing Wisdom Not Competitive: Riding Customer-Choice Wave with Innovation Creates Margin, Attracts Customers," for *Energy Marketing; Forecasting the Future of the Energy Marketplace*, February 1999/Volume 2.1.

"Chapter 16: Implications of Retail Customer Choice for Generation Companies." In *Customer Choice: Finding Value in Retail Electricity Markets*, Public Utility Reporting (PUR) Press, January 1999.

"Evolving Business Processes for Gas Utilities: The Impacts of Retail Choice," for the Gas Research Institute, Market Analysis and Information Technology Business Unit, May 1998.

"Retail Choice and Energy Convergence: Implications for Gas Utilities," *Natural Gas*, Pubs., John Wiley & Sons, Inc., August 1998.

"Viable Business Models for Generation in an Era of Competition and Retail Choice," Public Utilities Report, Forthcoming, September 1998.

"Evaluation, Verification, and Performance Measurement of Energy Efficiency Programmes." *International Energy Agency Publication*, Paris, France, Forth Draft, April 25, 1996.

Editor, *Performance Impacts: Evaluation Methods for the Nonresidential Sector*, Electric Power Research Institute Pubs., Palo Alto, CA, EPRI TR-105845, Research Project 3269, December 1995.

Editor, Inaugural Issue of the Energy Services Journal, Lawrence Erlbaum Associates Pubs., Vol. 1, Issue 1, October 1995.

"Chapter 6: Estimating Spillover and Market Transformation." In *Performance Impacts: Evaluation Methods for the Nonresidential Sector*, Electric Power Research Institute Pubs., Palo Alto, CA, EPRI TR-105845, Research Project 3269, December 1995.

Evaluation and Verification of Energy Efficiency Programmes: Issues and Methods, International Energy Agency Pubs., Paris, France, October 1995.

"A Convergence of Concepts: The Coming Wave of Change Management and Strategic Benchmarking." President's Column, *STRATEGIES: A Publication of the Association of Energy Services Professionals*, Spring 1995, p. 9.

"Demand-Side Management at the Crossroads," *Natural Gas Journal*, Pubs: John Wiley & Sons, Inc., December 1994, pp. 13-18.

"DSM in the Crystal Ball." President's Column, *STRATEGIES: A Publication of the Association of Energy Services Professionals*, Fall 1994, p. 7.

Regulating DSM Program Evaluation: Policy and Administrative Issues for Public Utility Commissions. National Association. of Regulatory Utility Commissions, (NARUC), Washington, DC, NTIS Pubs. #ORNL/Sub/95X-SH985C, April 1994.

"Comments on Applying Ratio Estimation Methods." *Evaluation Exchange*. Synergic Resources Corporation and the International Energy Program Evaluation Conference Pubs., Bala Cynwyd, PA, September/October 1993, Vol. 3, No. 2, p. 3.

"Chapter 4: Value of a Statistical Life in Wrong Death Cases," *Hedonic Methods in Forensic Economics*, J. Ward Ed., University of Missouri Press Pubs., 1992.

"Setting Evaluation Accuracy Standards: What Will and Will Not Work." *Evaluation Exchange.* Synergic Resources Corporation and the International Energy Program Evaluation Conference Pubs., Bala Cynwyd, PA, November/December 1992, Vol. 2, No. 6, p. 9.

Approaches for Synthesizing DSM Program Evaluations: The Wisconsin DSM programs Evaluation Database and a Review of Meta-Analysis, Electric Power Research Institute Pubs., Palo Alto, CA, #EPRI, TR-100697s, Vols. 1-3, June 1992.

"Chapter 5: Data Analysis for DSM Program Evaluation," in the *Handbook to DSM Program Evaluation*, Eric Hirst and John Reed, eds., NTIS Pubs., Washington, DC, # ORNL/CON -336, December 1991.

"Chapter 9: Integrated Resource Planning and the Clean Air Act, in *Energy Efficiency and the Environment: Forging the Link*," E. Vine, D. Crawley and P. Centolella, eds., ACEEE Series on Energy Conservation and Energy Policy, Pubs: American Council for an Energy-Efficient Economy Pubs., Washington, DC, 1991, pp. 177-188.

Impact Evaluation of Demand-Side Management Programs — Volume 2: Case Studies and Applications, Electric Power Research Institute Pubs., Palo Alto, CA, #EPRI CU-7179 V2, September 1991.

Impact Evaluation of Demand-Side Management Programs — Volume 1: A Guide to Current Practice, Electric Power Research Institute Pubs., Palo Alto, CA, #EPRI CU-7179, Vl, February 1991.

Integrated Planning, Evaluation and Cost Recovery Issues for Gas Distribution Utilities. Planning and Analysis Group, American Gas Association Pubs., May 1991.

TESTIMONY

- Prepared testimony and testified before the New Jersey Board of Public Utilities concerning GPU's Restructuring Petition, Docket No. EO97060396, March 20, 1998. Corresponding report is entitled "Review of GPU's Restructuring Petition, GPU Energy Docket No. EA97060396, February 24, 1998.

- Prepared testimony and testified before the New Jersey Board of Public Utilities concerning GPU Energy Unbundled Rates Petition, Docket No. EO97070458," January 12, 1998. Corresponding Report is entitled "Review of GPU's Unbundled Rates Petition," GPU Energy Docket No. EA97060396, December 15, 1997.

- Prepared testimony in the Joint Application of Central Power and Light Company, West Texas Utilities Company and Southwestern Electric Power Company for Approval of Preliminary Integrated Resource Plans and for Related Good Cause Exceptions, before the Public Utility Commission of Texas, Docket No. 16995, January 1997.

- Participated in rate case testimony and support for Central Light and Power Company for the rate case, Docket No. 14965, before the Texas PUC, March 1996.

PROFESSIONAL AFFILIATIONS AND HONORS

- Elected to the Board of the Association of Energy Services Professionals, and also serves as Vice President of the Executive Committee, 2004.
- Served three years as elected President of the AESP, 1994, 1995, and 1996.
- Editor of the inaugural issue of the *Energy Services Journal*, Lawrence Erlbaum publishers, 1995.
- Member of the National Commission on Air Quality Benefits Estimation Panel.
- Member of the editorial board of *Evaluation Exchange.*
- Awarded *Highest Distinction* on both PhD Comprehensive Field Exams, University of Colorado.
- Recipient of University of Colorado Regents Fellowship.
- Graduated *summa cum laude*, Arizona State University, 1973.
- Male Scholar of the Year, Arizona State University, 1973.

ATTACHMENT B –

MATERIALS AND DOCUMENTS RELIED UPON

Attachment B

Materials and Documents Relied Upon

Document Date	Source	Description
Undated		Answer, Affirmative Defenses and Counterclaims to Second Amended Complaint Civil Action No. 02-CV-2733 (HB)
November 15, 2002		Second Amended Complaint- Civil Action No. o2-CV-2733 (HB)
Undated		Defendants' amended answer, affirmative defenses and counterclaims to plaintiff's second amended complaint
April 2004		Comparison of Powerweb Energy Technology with EIT Technology and WebJoules
July 18, 2003	ALM Presentation	PJM Active Load Management (ALM) Program: Features and Relationship to DSR, John M. Reynolds
July 1999	ASHRAE Research Project 1011-RP	"Utility/Energy Management and Controls System (EMCS) Communication Protocol Requirements"
Undated	Avista Company Overview	Webpage of Avista Corporation, cited by Roger Levy as one of the early leaders in Energy Information Systems.
Undated	Avista Facility IQ Overview	Webpage: summary of Avista Facility IQ Utility services from their current website
Undated	Avista Recon Overview	Webpage: summary of Avista Facility IQ Energy Recon from their current website
March 10, 2000	Bonner 1 Exhibit	Non-Disclosure Agreement
June 1, 2000	Bonner 1; MM001446 – MM001447	Non-Disclosure Confidentiality Agreement
July 18, 2001	Bonner-10 Exhibit	PowerWeb Due Diligence
Undated	Budike 10	Executive Summary
October 14, 1999	Budike 11	Letter to Mr. Kirk Hampton
October 29, 1999	Budike 15	Letter to Mr. Kirk Hampton
October 29, 1999	Budike 17	Email to Mr. Kirk Hampton
November 29, 1999	Budike 18	From Kirk Hampton, Questions on Powerweb

Attachment B

October 26, 1999	Budike 19	Bell Atlantic Reserve Capacity Sales Update, Notes on Meeting with PowerWeb October 26, 1999
March 12, 1999	Budike 2 Exhibit	Letter to Mr. Jim Goodman
November 27, 1999	Budike 20	Proposal to Proceed with PowerWeb to Implement Capacity and Energy Sales with Bell Atlantic on the PJM
November 27, 1999	Budike 21	Appendix 1 PowerWeb's Original Plan Presented to NewEnergy
Undated	Budike 22	Defendant's Amended Answer
November 27, 1999	Budike 23	Preliminary Technical Review
Undated	Budike 24	Bell Atlantic Capacity Side Sales, Dave McGeown
February 28, 2000	Budike 26	NewEnergy Load Shape Product Technical Specifications
Undated	Budike 3 Exhibit	Powerweb Presentation
June 24, 1999	Budike 4 Exhibit	Letter to Mr. Jim Goodman
October 4	Budike 7 Exhibit	Opportunity to grow our product line for the telecommunication industry through Bell Atlantic
October 12, 1999	Budike 9	Letter to Mr. Kirk Hampton
March 20, 2000	Budike-13	Employment Agreement Joe Bonner
April 2004	Case Study	Xcel Energy/NSP Interruptible Rates Program as prepared by Randy Gunn; Electric Service Agreement Peak-Controlled Tiered Serves
February 20, 2004	Deposition	Oral Deposition: Anderson, Martin Vol. 1
February 19, 2004	Deposition	Oral Deposition: Bakey, Andrew Vol. 1
February 29, 2004	Deposition	Oral Deposition: Bonner, Joseph Vol. 1
October 22, 2003	Deposition	Oral Deposition: Budike, Lou
January 30, 2004	Deposition	Oral Deposition: Budike, Lou Vol. 1
January 13, 2004	Deposition	Oral Deposition: Budike, Lou Vol. II-Confidential
February 17, 2004	Deposition	Oral Deposition: Hayduk, Brian
February 20, 2004	Deposition	Oral Deposition: Kiselwich, Ruth (BG&E)
January 8, 2004	Deposition	Oral Deposition: Lord, Diedre
February 26, 2004	Deposition	Oral Deposition: McGeown, David Vol. 1

Attachment B

March 4, 2004	Deposition	Oral Deposition: Metz, Jermey (Verizon)
February 25, 2004	Deposition	Oral Deposition: Mistry, Keith Vol. 1
February 27, 2004	Deposition	Oral Deposition: Scarpelli, Peter
February 9, 2004	Deposition	Oral Deposition: Short, Doug
March 1999	Distributed Generation Forum	"The Role of Distributed Generation in Competitive Energy Markets" by Onsite Sycom Energy Corporation
March 2000	E SOURCE Distributed Energy Series DE-10	Geraghty, Dominic. "Strategic Market Assessment for Distributed Energy: Scenarios from a Venture Capitalist"
June 1999	E SOURCE Distributed Energy Series DE-7	Lenssen, Nicholas, Christine Hurley and Lindsay Audin. "How Will Distributed Generation Be Deployed?"
September 1998	E SOURCE Distributed Energy Series. DE-4	Armstrong, David, Laurence Kirsch and Cara Le Mahany Braithwait. "Dynamic Pricing and the Future of Distributed Generation."
December 1997	E SOURCE Energy Information and Communication Series	Fryer, Lynn. "Got Data? Service Bureaus Manage Energy Information."
December 2001	E SOURCE Energy Information and Communication Series	Fryer, Lynn and Keller, Leland. "Meter Data Analysis Services: Making the Most of Interval Data"
July 1999	E SOURCE Energy Information and Communications Series – EIC-6	Fryer, Lynn and Brendan Kiernan. "Having an Out-of-Building Experience: 24-Hour Remote Monitoring and Control Services"
June 1997	E SOURCE Strategic Issues Paper	Hodge, Graham and Michael Shepard. "The Distributed Utility"
April 1995	E SOURCE Strategic Issues Paper	Newcomb, James and Warren Byrne. "Real-Time Pricing and Electric Utility Industry Restructuring: Is the Future 'Out of Control?'"
November 1998	E SOURCE Distributed Generation Series and Power Quality Series – DE-5 PQ-2	Krepchin, Ira. "Distributed Generation: A Tool for Power Reliability and Quality"
December 2000	E SOURCE Energy Information and Communication Series	Montague, Dick. "Voluntary Load Curtailment Systems for Win-Win Load Control"
November – December 1999	EIS 1999 UoHK Paper	Web-based information system for energy efficient technologies in HVAC and the built environment,

Attachment B

		Hui, S.C.M.
1994	EIS Trail 1994 Summary	Presentation given at Park Associates Forum 1994 Conference
October 6, 1998	Energy Information and Communication Summit	"Integrated Real-time Enterprise-Wide Energy Information with Control" John Woolard, Silicon Energy
October 6, 1998	Energy Information and Communication Summit	"Metering and Information Requirements for Competitive Markets" John Powers, Energy Interactive
November 8, 1999	Energy Information and Communication Summit	"Getting the Data you Need for EIS: Metering Technologies" John Reckleff, ABB Electricity Metering
November 8, 1999	Energy Information and Communication Summit	"Getting the Data You Need for EIS: Metering Technologies" Matt Oja, Carolina Power & Light
November 8, 1999	Energy Information and Communication Summit	"Pricing in Competitive Markets: Will Customers Accept "Real-Time" Risks?" Brendan Kiernan E Source
October 6, 1998	Energy Information and Communication Summit	"Metering and Information Requirements for Competitive Markets" Johns Powers Energy Interactive
October 6, 1998	Energy Information and Communication Summit	"Integrating Real-Time Enterprise-Wide Energy Information with Control" John Woolard, Silicon Energy
Undated	EnerLink	Overview from current website
October 7, 1997	E-Source EIC Summit	Honeywell Presentation "Pushing the Envelope: Integrating Information and Control, Remote Monitoring of HVAC Systems" Sam Sandquist, Manager, North American Building Services Center
October 7, 1997	E-source Meeting	Presentation "Powerlink System" by Richard Patton, Planergy
July 5, 2000	ETI000488 – ETI000497	Email to acolman@newenergy.com, Gustavo Flores, re: Fwd: 10 Day Rolling Average
November 16, 2000	ETI000507-ETI000509	Curtailment Review
November 1, 2000	ETI000512-ETI000516	Handwritten Notes
November 2, 2000	ETI000517-ETI000518	Product Description
October 11, 1999	Exhibit A	Non-Disclosure Agreement between NewEnergy East and Powerweb Technologies

Attachment B

October 25, 1999	Exhibit B	Letter of Intent between NewEnergy East and Powerweb Technologies
January 7, 2000	Exhibit C	Exclusive Agreement for Bell Atlantic between NewEnergy East and Powerweb Technologies
January 8, 2000	Exhibit D	Joint Marketing Agreement between NewEnergy East and Powerweb Technologies
1996	Honeywell – Home and Building Control	Honeywell Product Descriptions from 1996
September 1999	http://web.archive.org/web/ 19991216092314/www.enflex.net/enflex/products	EnFlex Application Software.
2000	http://web.archive.org/web/20010215021650/ ww.elutions.com/eLutionsCorporate/main. November 9	eLutions.
September 27, 1997	Information Week On-Line	"Power to the People" article
November 1999	ITron	"Duquesne Light Company: Itron Network Delivers Value Far Beyond Meter Reading"
May 2002	LBL Web EIS 2002	"Web-based Energy Information Systems for Large Commercial Buildings: authored by Naoya Motegi and Mary Ann Piette, LBL
April 18, 2003	LBL Web EIS rev2003	Final report on paper described above
1995	Levy Gateways	Presentation titled "Advanced Automation and Information Service Trials:, Roger Levy
2001	Levy Meterscope	"Meter Scoping Study" prepared for the California Energy Commission by Roger Levy
April 29, 1999	McGeown 001-002	Letter from H. Davitian to E. Kulik, Jr.
April 29, 1999	McGeown-001	Letter to Edward Kulik, Jr.
September 20, 2002	Metz-6	Contract Between Electrotek Concepts Inc (Curtailment Service Provider), Verizon (End Use Customer and Owner of Curtailment Facilities) and Constellation NewEnergy (Customer)
March 23, 2001	NE000396 – NE000402	Email from P. Langbein to D. Mitchell et al. re: Curtailment Contract Ver2
March 23, 2001	NE000396-NE000402	Email to David Mitchell, Jeffrey Bladen, Eric Matheson, Chobun Hieblinger, Ed Toppi, Dan Smith re: Curtailment Contract Ver 2

Attachment B

Undated	NE004046	AES NewEnergy Offers Two Load Response Programs
May 24, 2001	NE004761-NE004763	Email to dmcgeown@newenergy.com re: Curtailment Project Changes Update
Undated	NE005573-NE005576	Pamphlet Copy
December 18, 2003	NE-36	Summary of Functionality for Each Platform
Undated	NE-36; From PW002290	Comparison of Powerweb's Omni-Link internet energy Platform with the Products and Services of Competing Companies
February 8,2000	NE-38	Joint Marketing Agreement
February 8, 2000	NE-38; PW05109 - PW05111	Joint Marketing Agreement between New Energy and Powerweb
June 18, 1999	NE-39	Verizon Purchase Order
February 7, 2000	NE-40	Letter to Mr. Dave McGeown
September 19, 2000	NE-45	Email to Brian Hayduk re: Powerweb Technologies News Release
January 16, 2001	NE-48	Email to D Short re: AES New Energy Proposal 1-1.doc
March 22, 2001	NE-51	Presentation "Enabling Technologies for Advancing Real Time Demand Response Programs"
Undated	NE-52	Proposal For the Omni-Link Internet Energy Platform
Undated	NE-59	ALM Credit Purchase Agreement
Undated	NE-59; AB000016 – AB000018	ALM Credit Purchase Agreement
Undated	NE-62	PJM's Customer Load Reduction Pilot Program
Undated	NE-62	PJM's Customer Load Reduction Pilot Program
August 1, 2000	NE-63	Employment Agreement Andy Bakey
August 1, 2000	NE-63; MM001393 – MM001396	A. Bakey Employment Agreement
October 2000	NE-64	Retx.com Load Management Dispatcher Presentation
July 31, 2000	NE-67	Employment Agreement Mr. Andrew Bakey
August 1, 2000	NE-67; AB000059 – AB000062	A. Bakey Employment Agreement
August 17, 2000	NE-71	PowerWeb Confidential Business Plan PPL Sustainable Energy Fund

Attachment B

August 1, 2000	NE-73	Agreement for Consulting Services
August 1, 2000	NE-73; MM001403 – MM001415	Agreement for Consulting Services between Powerweb and Bridgestone Associates, LTD
August 16, 2000	NE-75	Letter to Mr. Brian Hayduk
September 18, 2000	NE-76	Comparison of PowerWeb Technologies, Inc.'s Omni-Link Internet Energy Platform with the Products and Services of Silicon Energy
Undated	NE-77	Case Study 1- Regional Integration Platform System
Undated	NewEnergy's Website	Summary of WebJoules service
Undated	Omni-Link Demonstration	GAF Corporation
Undated	Omni-Link Demonstration	For Bell Atlantic
Undated	Omni-Link Demonstration	Demo Screen Shots
June 14, 2000	PJM Interconnection, LLC News Release	"PJM forms Distributed Generation User Group"
July 7, 2000	PJM Interconnection, LLC News Release	"PJM Reliability Program Filed at FERC"
August 4, 2000	PJM Interconnection, LLC News Release	"PJM Customer Load Reduction Pilot Program Approved"
April 28, 2004	PJM ISO	Telephone Conversation with Mr. John Reynolds
October 1999	PLMA	"Application of Demand Exchange" presentation
1997	PowerMarketers.com Magazine archive – 1997 Issue 3	"Metering communications and services using the low voltage distribution network, by Dr. John Newbury
1997	PowerMarketers.com Magazine archive – 1997 Issue 3	"Home management services – Orca leads the way"
March 31, 2004	PowerWeb	Lost Profits Report
March 31, 2004	Powerweb Technologies	Lost Profits Report, by Pappas and Company
April 2004	PowerWeb, Inc.	Expert Report, Civil Action No. 02-VD-2733
April 2004	Powerweb, Inc.	Expert Report of Peter Fox-Penner, PhD
May 24, 1999	Press Lease 052499 EnerLink	SAIC's EnerLink Division announcing Bill Gen
September 13, 1999	Press Release 091399 EnerLink	SAIC's EnerLink Division announcing Enerlink.net

Attachment B

December 2000	Public Service Commission of Maryland	Ten-Year Plan (2000-2009) of Maryland Electric Utilities
September 16, 1999	Purchasing Magazine Online	"Revolution; in the energy supply base, by Anne Millen Porter
October 14, 1999	PW00020 – PW00041	Letter in response to due diligence review meeting
Undated	PW00133	Earn $$$ with New Energy
November 18, 1999	PW00207-PW00209	Email to Pweb1@aol.com (Lou Budike) re: Questions
November 23, 1999	PW00210-PW00212	Email to Pweb1@aol.com re: Powerweb Technologies
November 23, 1999	PW00213-PW00214	Email to Pweb1@aol.com re: Reponses
February 4, 2000	PW00269	Email to asigner@newenergy.com, dlahr@newenergy.com, Pweb1@aol.com re: Meeting with NE West re PWT
February 6, 2000	PW00273	Email to pscarpelli@newenergy.com re(2): Fwd: Load shaping and capacity sales
February 6, 2000	PW00274	Email to Pweb1@aol.com re: Update
February 8, 2000	PW00278	Email to pweb1@aol.com re: Demo CD
Undated	PW-102	Power Monitoring & Dispatch
December 30, 1999	PW-103	Email to David McGeown, Hayduk, Brain, Moore, Jon, jcurnyn@newenergy.com, Bridget, Robert re: Bell Atlantic PowerWeb
Undated	PW-108	Marketing Plan for AES NewEnergy Load Reduction Program
January 10, 2001	PW-109	Draft Specifications for a Curtailment Tool
January 16, 2001	PW-110	Email to Doug Short re: RE(2) RE(2) Curtailment Project
January 17, 2001	PW-111	Email to Keith Mistry re: RE(2) RE(2) Curtailment Project
August 15, 1999	PW-120	Email to Kmistry@energytracking.com re: Proposal for submetering at 1460 Broadway
April 20, 2000	PW-14	Email to Pweb1@aol.com re: Load Curtailment Pilot
February 7, 2000	PW-140	Letter to Mr. David McGeown

Attachment B

Undated	PW-141	List
April 24, 2000	PW-15	Proposal for Bell Atlantic Pilot Load Curtailment Program
February 8, 2000	PW-16	Exclusive PWT Customer Marketing Agreement
November 4, 2000	PW-161	Omni-Link License Agreement
September 15, 2000	PW-162	Confidentiality and Non-Disclosure Agreement
March 31, 2002	PW-167	Omni-Link License Agreement
July 16, 1999	PW-174	Proposal to Provide: Energy Information and Decision Support Services to BOMA Atlanta
July 14, 1999	PW-174; NE011718 – NE011753	Proposal to provide energy information and decision support services to BOMA Atlanta
February 7, 2000	PW-175	Letter to Mr. Andrew Singer
March 2, 2000	PW-176	NewEnergy –Energy Tracking Term Sheet
July 26, 2000	PW-177	Email to kmurthy@energytracking.com re: WebJoules updates
August 9, 2000	PW-178	Email to kmistry re: RETX Load Curtailment Application
August 21, 2000	PW-179	Specifications for Curtailment Module Initiated by Keith Mistry
January 10, 2001	PW-185	Email to dshort@newenergy.com re: EvaluationCriteria.doc
January 10, 2001	PW-186	Email to lbudike@newergery.com re: CurtailmentReportSpecs.doc
January 12, 2001	PW-188	Email to lbudike@powerweb.com re: Curtailment Project
January 19, 2001	PW-189	Email to curtailmentteam@iknow.aesks.com re: Curtailment Software Selection
January 19, 2001	PW-189	Email to curtailmentteam@iknow.aesks.com re: Curtailment Software Selection
December 16, 2000	PW-218	NE Curtailment Information Product Development Plan Level 1- Initial Scoping Requirements
August 16, 2000	PW-22	Letter to Mr. Brian Hayduk
March 19, 2001	PW-222	Email to Cynthia Mansbridge, Rmorgan@newenergy.com, rryan@newenergy.com, Greg

Attachment B

		Tinfow, jrobison@newenergy.com, chubbard@newenergy.com, kmistry@newenergy.com, Phillip A. Conner, bbingham@newnergy.com re: Disposal of materials supplied by curtailment vendors
March 21, 2001	PW-223	Email to curtailmentteam@iknow.aesks.com re: storyboard.pdf
October 9, 2000	PW-25	Email to Brian Hayduk, Deirdre Lord, Steve Rothstein, Bob Kinscherf, Ed Toppi, Peter Langbein, Jon Moore re: Curtailment Operations Process
November 8, 2000	PW-28	Email to jbladen@newenergy.com re: RE: Mid-Atl product planning
January 26, 2001	PW-29	Email to NewEnergy-MidAtlantic@newenergy.com re: Curtailment Product-Status Review
February 3, 2000	PW-48	Email to bhayduk@newenergy.com (David McGeown) re: Profit Distribution agreement + other bits
February 3, 2000	PW-49	Email to bhayduk@newenery.com re(2): Profit distribution agreement + other bits
February 3, 2000	PW-50	Email to Pweb1@aol.com re: Agreement to cover PWT customers
March 5, 2001	PW-56; NE000486-NE000491	Email re: Last year's curtailment contract
March 26, 2001	PW-57; NE000657 – NE000465	Email from D. Lord to B. Hayduk, re: Curtailment
May 3, 2001	PW-59; NE000586-NE000604	Email from Deirdre Lord to Brain Curry, Richard Card, Howard Levine, John Rotondo, Stu Temple, Sean Mullen re: NY VIP Contracts
November 27, 1999	PW-6	PowerWeb Deal Summary
February 28, 2001	PW-60	Email to Brian Hayduk, Richard Card re: Verizon RFP.doc
January 22, 2001	PW-64	Email to Kinscherf, Bob re(4): Curtailment Software Selection
February 22, 2001	PW-66	Email to plangbein@newenergy.com re: WebJoules VS EI EPO EIS functionality
Undated	PW-67	ALM Credit Purchase Agreement
December 4, 1999	PW-7	Email to Pweb1@aol.com re(2): Bell Atlantic – PowerWeb

Attachment B

October 25, 1999	PW-72	Letter to Mr. Steve Levine
October 11, 1999	PW-73	Letter to NewEnergy Corporation Lou Budike
October 25, 1999	PW-74	Letter to NewEnergy East, LLC
October 25, 1999	PW-75	Letter to NewEnergy East, LLC
October 26, 1999	PW78	Letter to NewEnergy East, LLC
October 26, 1999	PW-78	Letter to NewEnergy East, LLC
November 3, 1999	PW-83	Email to Robert Morgan re: Bell Atlantic/PowerWeb
January 8, 2000	PW-9	Exclusive Bell Atlantic Agreement Addendum: Profit Distribution Agreement
December 31, 2000	RG&E	Final Report, Economic Curtailment Program, Program Concept
December 31, 2000	Rochester Gas and Electric Corporation – Final Report	"RG&E Economic Curtailment Program" – Program Concept
February 7, 2000	Scarpelli-3	Letter to Mr. Peter Scarpelli
Undated	Scarpelli-4	Omni Link Presentation
February 7, 2000	Scarpelli-5	Letter to Mr. Peter Scarpelli
August 17, 2000	SEFCEP00933 – SEFCEP00968	Confidential Business Plan – PPL Sustainable Energy Fund
December 15, 1999	Silicon Energy	"Reducing Energy Costs via the Web"
June 30, 1999	Silicon Energy News Release	"Silicon Energy™ Releases Enerscape™ V1.3"
November 1, 1999	Silicon Energy News Release	"Silicon Energy and Planergy Services join forces to provide integrated load curtailment solutions"
January 3, 2000	*Standard & Poor's Utilities & Perspectives Newsletter.* ENCORP.	Castelaz, Scott, A. "Plugging into Hidden Capacity and Networking Distributed Generation with the Virtual Power Plant™
October 30, 2000	The E Cubed Company, LLC	Presentation: "ISO Responses to Extreme Price spikes and the FERC: How to Cooperate and Avoid Repeating Mistakes"
September 19, 2000	United States Patent # 6,122,603	Multi-Utility Energy Control System with Dashboard

ATTACHMENT C –
EXPERT REPORT EXHIBITS

Exhibit DV – 1

BOMA's Immediate Requirements

Exhibit DV-1 – BOMA's Immediate Requirements and ETI Capabilities

BOMA Requirements	ETIcore's Capability
Demand (kW)	Yes
Energy (kWh)	Yes
Time Stamp	Yes
Apparent Energy (KVAh)	Yes
Power factor	Yes
Benchmark$/sq.ft., BTU/sq.ft.	Yes
Load Profiles	Yes
Energy Costs	Yes
Warnings and Alarms	Yes
Multi-Site Aggregation	Yes

More Enhanced Features	ETIcore's Capability
Billing	Yes
Conjunctive Billing	Yes
Real Time Pricing	Yes
E-mail Reporting	Yes
Import Historical Interval Data	Yes
Drill down Profiling Monthly, Daily or Hourly	Yes
Stacked Graphing	Yes
Profile Active / Reactive Energy	Yes
Imbalance Calculations	Yes
Call Meter(s)	Yes
Program Meter(s)	Yes
Call Logs	Yes
Activate/Deactivate Loads	Yes

Exhibit DV – 2

Comparison of Powerweb and ETI/WebJoules

Exhibit DV-2 – Comparison of Powerweb and ETI/WebJoules

	Powerweb	ETI / WebJoules
Company Roots	Controls	Metering
Data Server/CPU	Local	Central
Calculations	Local	Central
Data Collection	TCPIP Devices	Std analog, digital and pulse
Use DDE, OPC and ASCII	YES w/ translators	NO
Ability to control relays	YES	NO